

U.S. ARMY BASE CLOSURE PROGRAM FINAL DECISION DOCUMENT

CAMERON STATION ALEXANDRIA, VIRGINIA

NOVEMBER 1993

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U.S. ARMY BASE CLOSURE PROGRAM FINAL DECISION DOCUMENT CAMERON STATION ALEXANDRIA, VIRGINIA

NOVEMBER 1993

TABLE OF CONTENTS

LIST	OF AC	CRONYMS AND ABBREVIATIONSv	
1.0	DEC	LARATION FOR THE DECISION DOCUMENT	
	1.1	SITE NAME AND LOCATION1-1	
	1.2	STATEMENT OF BASIS AND PURPOSE1-1	
	1.3	ASSESSMENT OF THE SITE	
	1.4	DESCRIPTION OF THE REMEDY1-1	
	1.5	STATUTORY DETERMINATIONS1-2	
2.0	DEC	ISION SUMMARY2-1	
	2.1	SITE NAME, LOCATION, DESCRIPTION, HISTORY AND	
		ENFORCEMENT ACTIONS2-1	
	2.2	HIGHLIGHTS OF COMMUNITY PARTICIPATION 2-4	
	2.3	SCOPE AND ROLE OF THE BASE CLOSURE RI/FS	
	2.4	SUMMARY OF SITE CHARACTERISTICS	
		2.4.1 Operable Unit 1 - PCB Transformers	
		2.4.2 Operable Unit 3 - Landfill	
		2.4.3 Operable Unit 4 - Pesticides Use and Storage Areas 2-7	
		2.4.4 Operable Unit 5 - Sanitary and Storm Sewer Systems 2-7	
		2.4.5 Operable Unit 6 - Acid Pits	
		2.4.6 Operable Unit 8 - PX Service Station and	
		Building 2 Underground Storage Tanks2-8	
	2.5	SUMMARY OF SITE RISKS	
		2.5.1 Risk Assessment	
		2.5.2 Ecological Assessment	
	2.6	HUMAN HEALTH RISKS2-11	

TABLE OF CONTENTS (Continued)

	2.6.1	Introduction
	2.6.2	Chemicals of Potential Concern
	2.6.3	Exposure Assessment
	2.6.4	Toxicity Assessment
	2.6.5	Risk Characterization
	2.6.6	Uncertainties in the Baseline Risk Assessment 2-19
2.7	ENVI	RONMENTAL RISKS2-19
	2.7.1	Ecological Risk Under Current Land Use Conditions 2-19
	2.7.2	Ecological Risk Under Future Land Use Conditions 2-20
2.8	DESC	RIPTION OF ALTERNATIVES2-20
	2.8.1	OU-1 PCB Transformer Service, Storage and Spill Areas 2-20
	2.8.2	OU-3 Landfill
	2.8.3	OU-4 Pesticides Use and Storage Area 2-23
	2.8.4	OU-5 Sanitary and Storm Sewer Systems 2-24
	2.8.5	OU-6 Acid Pits
	2.8.6	OU-8 PX Service Station and Building 2
		Underground Storage Tanks
2.9	SUMN	MARY OF THE COMPARATIVE ANALYSIS OF
	ALTE	RNATIVES
	2.9.1	Overall Protection of Human Health and the Environment 2-30
	2.9.2	Compliance with Applicable or Relevant and
		Appropriate Requirements (ARARs)
	2.9.3	Long-Term Effectiveness and Permanence
	2.9.4	Reduction in Toxicity, Mobility and Volume of
		Contaminants Through Treatment
	2.9.5	Short-Term Effectiveness

TABLE OF CONTENTS (Continued)

		2.9.6 Implementability	
		2.9.7 Costs	
		2.9.8 State Acceptance	
		2.9.9 Community Acceptance	
	2.10	THE SELECTED REMEDY	
	2.11	STATUTORY DETERMINATIONS	
		2.11.1 Protection of Human Health and the Environment 2-37	
		2.11.2 Compliance with ARARs	
		2.11.3 Cost-Effectiveness	
		2.11.4 Utilization of Permanent Solutions to the	
		Maximum Extent Practicable	
		2.11.5 Preference for Treatment	
	2.12	DOCUMENTATION OF SIGNIFICANT CHANGES 2-38	
3.0	RESP	ONSIVENESS SUMMARY	
	, 3.1	OVERVIEW	
	3.2	BACKGROUND AND COMMUNITY INVOLVEMENT3-1	
	3.3	SUMMARY OF PUBLIC COMMENTS AND AGENCY RESPONSE 3-1	
4.0	REFE	ERENCES	
APPI	ENDIX	A GLOSSARY	
APPENDIX B		B EXPOSURE POINT CONCENTRATIONS OF CHEMICALS OF	
		POTENTIAL CONCERN AT CAMERON STATION	
APPENDIX C		C CARCINOGENIC AND NON-CARCINOGENIC RISKS AT CAMERON STATION	
APPENDIX D		D GLOSSARY OF EVALUATION CRITERIA	

LIST OF TABLES				
TABLE 2-1	SUMMARY OF CHEMICALS OF POTENTIAL CONCERN AT CAMERON STATION			
TABLE 2-2	EXPOSURE SCENARIOS EVALUATED AT CAMERON STATION			
TABLE 2-3	INHALATION EXPOSURE TIME, FREQUENCY, AND DURATION			
	TERMS USED IN THE CAMERON STATION EXPOSURE ASSESSMENT			
TABLE 2-4	INGESTION AND DERMAL CONTACT EXPOSURE FREQUENCY			
	AND DURATION TERMS USED IN THE CAMERON STATION			
	EXPOSURE ASSESSMENT			
TABLE 2-5	SUMMARY OF CARCINOGENIC EFFECTS AND SLOPE FACTORS			
	FOR CONTAMINANTS OF POTENTIAL CONCERN AT THE			
	CAMERON STATION SITE			
TABLE 2-6	SUMMARY OF NON-CARCINOGENIC EFFECTS AND CRITICAL			
	TOXICITY VALUES FOR CONTAMINANTS OF POTENTIAL			
	CONCERN AT THE CAMERON STATION SITE			
TABLE 2-7	CHEMICALS CONTRIBUTING TO EXCESS CANCER RISK AT A			
	PATHWAY LEVEL OF 1E-6 OR GREATER			
TABLE 2-8	SUMMARY OF DETAILED ANALYSIS OU-1 PCB TRANSFORMER			
	SERVICE, STORAGE AND SPILL AREAS			
TABLE 2-9	SUMMARY OF DETAILED ANALYSIS OU-3 LANDFILL			
TABLE 2-10	SUMMARY OF DETAILED ANALYSIS OU-4 PESTICIDES USE AND			
	STORAGE AREAS			
TABLE 2-11	SUMMARY OF DETAILED ANALYSIS OU-5 SANITARY AND			
	STORM SEWER SYSTEMS			
TABLE 2-12	SUMMARY OF DETAILED ANALYSIS OU-6 ACID PITS			
TABLE 2-13	SUMMARY OF DETAILED ANALYSIS OU-8 PX SERVICE STATION			
	AND BUILDING 2 UNDERGROUND STORAGE TANKS			
TABLE 2-14	CHEMICAL SPECIFIC ARARS			
TABLE 2-15	ACTION SPECIFIC ARARS			
TABLE 2-16	LOCATION SPECIFIC ARARS			
TABLE 2-17	CLEANUP GOALS FOR SOIL/SOLID WASTE IN CAMERON			
	STATION			
TABLE 2-18	CLEANUP GOALS FOR GROUNDWATER			

LIST OF FIGURES

FIGURE 2-1	LOCATION	MAP
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FIGURE 2-2 SITE FEATURES

LIST OF TABLES

TABLE 2-1	SUMMARY OF CHEMICALS OF POTENTIAL CONCERN AT
	CAMERON STATION
TABLE 2-2	EXPOSURE SCENARIOS EVALUATED AT CAMERON STATION
TABLE 2-3	INHALATION EXPOSURE TIME, FREQUENCY, AND DURATION
	TERMS USED IN THE CAMERON STATION EXPOSURE
	ASSESSMENT
TABLE 2-4	INGESTION AND DERMAL CONTACT EXPOSURE FREQUENCY
	AND DURATION TERMS USED IN THE CAMERON STATION
	EXPOSURE ASSESSMENT
TABLE 2-5	SUMMARY OF CARCINOGENIC EFFECTS AND SLOPE FACTORS
	FOR CONTAMINANTS OF POTENTIAL CONCERN AT THE
	CAMERON STATION SITE
TABLE 2-6	SUMMARY OF NON-CARCINOGENIC EFFECTS AND CRITICAL
	TOXICITY VALUES FOR CONTAMINANTS OF POTENTIAL
	CONCERN AT THE CAMERON STATION SITE
TABLE 2-7	CHEMICALS CONTRIBUTING TO EXCESS CANCER RISK AT A
	PATHWAY LEVEL OF 1E-6 OR GREATER
TABLE 2-8	SUMMARY OF DETAILED ANALYSIS OU-1 PCB TRANSFORMER
	SERVICE, STORAGE AND SPILL AREAS
TABLE 2-9	SUMMARY OF DETAILED ANALYSIS OU-3 LANDFILL
TABLE 2-10	SUMMARY OF DETAILED ANALYSIS OU-4 PESTICIDES USE AND
	STORAGE AREAS
TABLE 2-11	SUMMARY OF DETAILED ANALYSIS OU-5 SANITARY AND
	STORM SEWER SYSTEMS
TABLE 2-12	SUMMARY OF DETAILED ANALYSIS OU-6 ACID PITS
TABLE 2-13	SUMMARY OF DETAILED ANALYSIS OU-8 PX SERVICE STATION
	AND BUILDING 2 UNDERGROUND STORAGE TANKS
TABLE 2-14	CHEMICAL SPECIFIC ARARS
TABLE 2-15	ACTION SPECIFIC ARARS
TABLE 2-16	LOCATION SPECIFIC ARARS
TABLE 2-17	CLEANUP GOALS FOR SOIL/SOLID WASTE IN CAMERON
	STATION
TABLE 2-18	CLEANUP GOALS FOR GROUNDWATER

LIST OF FIGURES

FIGURE 2-1	LOCATION MAP
FIGURE 2-2	SITE FEATURES

LIST OF ACRONYMS AND ABBREVIATIONS

AEC Army Environmental Center

ARAR Applicable or Relevant and Appropriate Requirement **ATSDR** Agency for Toxic Substances and Disease Registry

Federal Ambient Water Quality Criteria **AWOC**

BTEX Benzene, Toluene, Ethylbenzene and Xylene

CFR Code of Federal Regulations

CERCLA Comprehensive Environmental Response, Compensation, and

Liability Act of 1980

cm² Square Centimeter

CSF Oral and Inhalation Cancer Slope Factors

CTV Critical Toxicity Value

CY Cubic Yards

1,2-DCA 1,2-dichloroethane 1,1-DCE 1,1,dichloroethene DD **Decision Document**

DDD dichlorodiphenyldichloroethane

DDE 1,1,dichloro-2,2-bis(4-chlorophenyl)-ethylene

DDT dichlorodiphenyltrichloroethane

DEO Department of Environmental Quality **EPA** U.S. Environmental Protection Agency

FS Feasibility Study gallon per minute gpm HI Hazard Index HO **Hazard Quotient ICF** ICF Technology Inc.

Interim Remedial Action kg kilograms L Liter

1b pounds

LDR Land Disposal Restrictions **MCL** Maximum Contaminant Level

milligram mg

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LIST OF ACRONYMS AND ABBREVIATIONS, CONTINUED

O&M Operations and Maintenance

OU Operable Unit

PAH polyaromatic hydrocarbon PCB polychlorinated biphenyl

PRA Preferred Remedial Alternative

PX post exchange

RCRA Resource Conservation and Recovery Act

RfD reference dose

RI/FS Remedial Investigation/Feasibility Study
RAGS Risk Assessment Guidance for Superfund

RfC Reference Concentration

ROD Record of Decision

SDWA Safe Drinking Water Act

SF slope factors

TCDD 2,3,7,8-tetrachlorodibenzo[b,e][1,4]dioxin

TCE Trichloroethene

TMV Toxicity, Mobility, Volume
TPHC Total Petroleum Hydrocarbons

 μ g Micrograms

USAEC U. S. Army Environmental Center

USEPA U.S. Environmental Protection Agency

UST Underground Storage Tank
VOC Volatile Organic Compound

WCFS Woodward-Clyde Federal Services

1.1 SITE NAME AND LOCATION

Cameron Station
Alexandria, VA
Operable Units 1, 3, 4, 5, 6, and 8

1.2 STATEMENT OF BASIS AND PURPOSE

This Decision Document (DD) identifies the selected methods for remediating Cameron Station, a military installation located in Alexandria, Virginia slated for closure by September 1995. This document is issued by the U.S. Army Environmental Center (USAEC). Though this site is not a CERCLA site, the Army has chosen to perform CERCLA-style evaluations of sites slated for closure and transfer from federal government ownership. The investigations performed and documents prepared for this site have been issued generally in accordance with the CERCLA process. This DD, therefore, corresponds to a Record of Decision (ROD) that would have been issued had this actually been a CERCLA site. The information supporting the lead and support agencies' decisions on the selected remedies is contained in the administrative record.

1.3 ASSESSMENT OF THE SITE

Actual or threatened releases of hazardous substances from this site, if not addressed by implementing the response actions selected in this DD, may present an imminent and substantial endangerment to public health, welfare, or the environment.

1.4 DESCRIPTION OF THE REMEDY

The installation was investigated and remedial actions were evaluated in the Remedial Investigation and Feasibility Study (RI/FS) performed from August 1990 through December 1992. Twelve Operable Units (OUs) or potential sources/areas of contamination were investigated. Only six OUs (OUs-1, 3, 4, 5, 6, and 8) were found to warrant remediation. No further action is necessary for the remaining six OUs. The response actions in this document address the principal threat at the site by treating contaminated soils and groundwater identified

at these OUs. Contaminated groundwater will be treated on-site. Contaminated residuals and soils will be disposed of off-site, such that the site will not require any long-term management subsequent to remediation. The major components of the selected remedy include:

- OU-1 Excavation of approximately 10 cubic yards of PCB and pesticidecontaining material and disposal at an off-site RCRA Subtitle C landfill.
- OU-3 Soil capping and monitoring of the approximately 20,000 square foot landfill. The cap will be designed to meet the state requirements for the closure of unpermitted construction/demolition/debris landfills.
- OU-4 Excavation of approximately 20 cubic yards of pesticide-containing wastes around the Building 30 septic tank, removal of the septic tank, and disposal at a RCRA Subtitle C landfill.
- OU-5 Groundwater collection followed by air stripping and discharge to surface water (with carbon treatment of air discharge) of TCE and 1,1-DCE contaminated groundwater near Building 2.
- OU-6 Excavation of approximately 10 cubic yards of TPHC and metal contaminated soils from two acid pit locations for disposal in an off-site RCRA permitted thermal treatment facility. Metals in the ash will be solidified before disposal.
- OU-8 Groundwater collection followed by air stripping and in-situ bioremediation of BTEX contaminated groundwater near the Building 2 and the PX service station.

1.5 STATUTORY DETERMINATIONS

The selected remedy is protective of human health and the environment, complies with Federal and State requirements that are legally applicable or relevant and appropriate to the remedial actions, and is cost effective. This remedy utilizes permanent solutions and alternative treatment (or resource recovery) technologies to the maximum extent practicable and satisfies the statutory preference for remedies that employ treatment that reduces toxicity, mobility, or volume as a

principal element. Because this remedy will not result in hazz above health based levels, the five-year review will not app	•
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Signature, Department of Environmenal Quality	Date
	!
Signature, Military District of Washington	Date

2.1 SITE NAME, LOCATION, DESCRIPTION, HISTORY AND ENFORCEMENT ACTIONS

Cameron Station is an Army installation located within the city limits of Alexandria, Virginia, approximately 2 miles west of downtown Alexandria and 1 mile east of the Interstate 395 and Virginia Route 236 interchange in Fairfax County (Figure 2-1). The 164-acre facility is bordered to the south and east by Backlick Run and Holmes Run, respectively. These streams converge at the southeastern portion of the installation to form Cameron Run, a tributary to the Potomac River. A Southern Railway right-of-way parallels Backlick Run and separates Cameron Station from Cameron Run Valley West, an industrial area located south of the installation. The Installation is bordered to the west and northwest by mixed commercial, residential, and industrial developments. Duke Street (Route 236) forms the northern boundary of the site.

Cameron Station has not been associated with weapons manufacture, chemical or otherwise, or heavy industrial activity. The site currently serves primarily as office space for civilian employees of several governmental agencies and has a Commissary and Post Exchange serving a large active and retired military population. Cameron Lake, consisting of interconnecting North and South Ponds, is located in the eastern portion of the site.

Service and storage facilities comprise about 40 percent of the total land use. Administration and community facilities make up about 26 percent and 11 percent of the land use, respectively. Recreational use covers 23 percent and medical use is less than 1 percent of the installation. The post includes 29 permanent buildings totaling 1,299,871 square feet, and four temporary buildings totaling 9,444 square feet. Cameron Station is primarily an administration facility. Most of the warehouse space has been converted to office space or commissary and PX facilities. The primary site features are shown on Figure 2-2.

Alexandria had a population of approximately 109,000 in 1988 (USACE, 1991). In 1985, about 61,000 people lived within a 2-mile radius of the installation. The Landmark-VanDorn planning area surrounding Cameron Station contains almost 1,065 acres, of which 25% is residential, 25% is industrial, 10% is parkland or vacant land, and the remainder is in office or retail use. The Cameron Station site was originally wetlands. The topography of Cameron Station now

ranges in elevation from about 45 to 85 feet above mean low water (ICF, 1990a). As a consequence of grading and of the construction of storm water drainage structures, approximately 97 percent of the site is now within the 100-year floodplain.

CAMSTA occupies land that was part of a vast pre-Revolutionary estate belonging to the Right Honorable Thomas Lord Fairfax, Baron Cameron. Gradually, the land was divided into smaller farms and mills. Soon after the beginning of World War II in 1942, 12 tracts of land consisting of approximately 164 acres were deeded to the government by purchase and condemnation for a general depot. The original designation of the installation was the Alexandria Quartermaster Depot, a Class II installation operated by the Quartermaster General. One of the responsibilities of the Quartermaster Department, dating back to 1869, was the operation of commissaries and PXs. In 1950, control of the facility was transferred to the Military District of Washington (MDW), and the depot was redesignated Cameron Station. In 1954, it became a permanent Department of the Army installation. Most of the warehouses were divided into office space in 1962, and the headquarters of the Defense Supply Agency (later redesignated the Defense Logistics Agency) was established at the installation. With the 1971 reorganization of the MDW, the post staff was eliminated and most of the MDW functions were moved to CAMSTA. Review of historical aerial photographs over the period 1949 to 1966 revealed that Cameron Station was surrounded by a rural/suburban environment in 1949. At that time, the majority of the site structures described above were present, with the exception of Building 23. Cameron Lake did not appear in the 1949 photograph, nor was there any evidence of base activity south of Backlick Run. Cameron Lake appears in the 1966 photograph as two adjacent but separate ponds. At that time activity is evident south of Backlick Run in the area now referred to as the "Landfill". The 1966 photograph also shows both the present PX service station (Building 23) and the previous PX service station, which was located north of Building 1.

Several investigations into environmental quality have been performed at Cameron Station during its history. Some of these studies were performed as a routine management action, and some were in response to a specific event (e.g., a spill). Each of the following such studies are summarized in detail in the RI Report.

A Solid Waste Management Consultation (No. 26-0466-77) was conducted at CAMSTA in September 1976 by the U.S. Army Environmental Health Agency (USAEHA) to evaluate the disposal of pesticide rinsewater and to investigate the possibility of groundwater and soil contamination from septic tank disposal operations. In July 1977, an Installation Pest

Management Program Survey (IPMPS No. 61-0540-78) was conducted by the USAEHA to evaluate the installation pest management program. An Installation Pest Management Program Review (No. 16-61-0535-82) was conducted in January 1982 by USAEHA to examine the existing pest management program. The primary emphasis of the review was on the program's health, safety, and procedural aspects as well as on specific areas identified in the IPMPS of July 1977. A Pesticide Monitoring Survey (No. 17-44-0252-85), was performed in September 1984 by USAEHA to evaluate the distribution of pesticides in several land use areas and major surface water systems. In May 1989, USAEHA conducted a Pesticide Risk Management Consultation (No. 17-38-0026-89) to investigate pigeon problems in and around Building 21.

In July 1983, a Hazardous Waste Management Survey (No. 37-26-0304-84) was conducted by USAEHA to review management of hazardous waste relative to the requirements of the Resource Conservation and Recovery Act (RCRA) of 1976, as amended, and applicable State and local requirements. An installation assessment of CAMSTA was conducted in 1984 by Environmental Science and Engineering (ESE, 1984) for the Army Environmental Center. The purpose of this assessment was to determine the presence of any toxic or hazardous materials and to assess the potential for off-post migration. The investigation consisted of a records search, interviews with current and former employees, and an on-site investigation of environmentally significant areas. An enhanced Preliminary Assessment of CAMSTA was performed and a report prepared in 1989 by Argonne National Laboratory for the Army Environmental Center. The purpose of the assessment was to address all documented or suspected incidents of actual or potential releases of hazardous or toxic constituents to the environment. The investigation consisted of a review of property files, interviews with employees, a site visit, and direct observation.

On August 30, 1979, a PCB spill occurred at CAMSTA in front of Door #17 outside of Building 9. Approximately three gallons of PCB fluid spilled from a damaged transformer onto a wooden truck bed and the underlying asphalt parking area. The spill was cleaned up, and the asphalt in the spill area removed. In June 1989, approximately 30 gallons of diesel fuel were spilled between Buildings 5 and 6. Much of the fuel ran into storm sewers 140, 143, and 163 which drain into Backlick and Cameron Runs. The Alexandria HAZMAT team contained much of the spill, but before cleanup was completed, a rainstorm washed the remaining fuel down Cameron Run. Several spills of gasoline have reportedly occurred at the PX Service Station (Building 23) over time. No documentation of individual spills is available. Base personnel indicate that on several occasions, tank overfills resulted in small releases (up to 50 gallons). Additionally, facility personnel reported that at least one fiberglass tank required repair some time in the 1980s

after the tank bottom was found to be punctured. Details of the leak, such as the duration, quantity, amount of material recovered, etc., are not known. Early in the RI, free-phase petroleum product and dissolved petroleum contamination of groundwater was discovered at the PX service station, and a limited amount of free product was observed at a No. 2 fuel oil tank at Building 2. In June 1991, an Interim Remedial Action (IRA) was initiated to address this problem in accordance with Virginia Regulation 680-13-02, Sections 6.4 and 6.5. A Site Characterization Report and Corrective Action Plan have been submitted to the state in accordance with Virginia regulations.

2.2 HIGHLIGHTS OF COMMUNITY PARTICIPATION

The Proposed Plan was distributed to solicit public comments regarding the proposed remedial alternatives for contaminated soil and groundwater at Cameron Station. USAEC relies on public input so that the remedy selected for the site meets the needs and concerns of the local community. To assure that the community's concerns were addressed, a public comment period was in effect from March 4 through May 3, 1993 and the opportunity for a public meeting to be held in the community was offered. The community did not request such a meeting. It is important to note that although USAEC selected preferred alternatives in the Proposed Plan, no final decision was made until after the comment period ended and all comments were considered. The Army solicited comments on all remedial alternatives evaluated in the FS and summarized in the Proposed Plan. Comments received are presented and responses provided in the Responsiveness Summary (Section 3.0) of this document.

2.3 SCOPE AND ROLE OF THE BASE CLOSURE RI/FS

The U.S. Army Environmental Center (USAEC) performed a Remedial Investigation and Feasibility Study (RI/FS) at Cameron Station in support of the base-closure process. It should be noted that Cameron Station is not a Superfund site. The Army has chosen to perform CERCLA-style evaluations of sites slated for closure and transfer from federal government ownership, however, and therefore the RI/FS was performed generally in accordance with the CERCLA process.

The RI/FS was performed from August 1990 through December 1992. Twelve OUs, or potential sources/areas of contamination, were investigated at Cameron Station. Each OU was investigated during the RI to define the nature, magnitude, and extent of any environmental

contamination. Information obtained from the RI was used during the FS to assess the health and environmental risks associated with closure and transfer of the base; to determine the necessity for remedial actions; and to develop and evaluate remedial action alternatives.

Based on the results of the RI/FS, only six OUs (OUs-1, 3, 4, 5, 6, and 8) were found to warrant remediation. A Proposed Plan, which contains remedial alternatives considered and identifies preferred alternatives, was prepared and made available for public comment.

The information repository that contains the RI and FS reports, the Proposed Plan, this Decision Document, and supporting documentation is available at the following location:

Alexandria Library Ellen Coolidge Burk Branch 4701 Seminary Road Alexandria, Virginia 22304

A glossary of terms that may be unfamiliar to the general public is provided in Appendix A.

2.4 SUMMARY OF SITE CHARACTERISTICS

This section provides an overview of each of the six operable units to be remediated. The following is a brief discussion of contaminants of concern, concentrations of contaminants, and media affected at each of these operable units. Descriptions of risks and routes of human and environmental exposures are presented in Sections 2.5, 2.6 and 2.7.

2.4.1 Operable Unit 1 - PCB Transformers

The use, storage and past spill of PCB transformers at Cameron Station have not resulted in widespread contamination. Based on the results of the Remedial Investigation, only highly localized, very low-level PCB contamination (1.24 mg/kg) of asphalt exists behind Building 9 (sample PCB 095). Although PCBs were detected (up to 55.04 μ g/100 cm²) in the asphalt at the location of the spill documented at Door 17 of Building 9, no PCBs were found in the soil beneath the asphalt. The highest level of PCBs detected on the asphalt (55 μ g/100 cm² is less than the regulatory level for surficial contamination in restricted areas (100 μ g/100 cm²) such

as the fenced area behind Building 9. This exceeds the unrestricted-access area standard of 10 μ g/100 cm², however.

Although asphalt at the storage areas may contain some PCBs, detection of only 1.24 mg/kg PCB in only one of the fifteen asphalt samples taken suggests only highly localized low concentrations of PCB. The detection of 2.12 mg/kg PCBs in surficial soils just off the asphalt storage area is further evidence that significant PCB contamination does not exist in this area (the regulatory level for cleaning up spill-contaminated soil is 10 mg/kg). Finally, significant PCB contamination was not found at pole or platform transformer locations by detecting PCBs in only four soil samples, all at levels less than 1 mg/kg. Although significant PCB contamination does not exist, remediation is being proposed since the site will be made available for unrestricted use.

2.4.2 Operable Unit 3 - Landfill

The results of the investigation into the landfill operable unit (OU) do not suggest widespread contamination of the subsurface soils or groundwater. Visual observations during the RI indicate that wastes normally associated with sanitary landfills (paper, household food wastes and debris, glass bottles and metal cans) are not present at the locations investigated. Methane gas was not observed during landfill boring activity. Furthermore, no leachate seeps have been observed at any time along the banks of the landfill at Backlick or Cameron Runs.

The soil within the interpreted limits of the landfill was found not to contain the majority of constituents analyzed. Only cadmium (at 1.17 mg/kg) and silver (at 5.71 mg/kg) in one sample exceeded the common range of concentrations for natural soils. This sample also contained a number of PAHs that totaled approximately 630 mg/kg and are attributed to wooden debris encountered at the depth of that sample. The isolated detections of PAHs in the landfill soil borings indicate that these compounds are not uniformly distributed in the fill. Both the metals and the PAHs appear to be relatively immobile under the conditions encountered as evidenced by the absence of PAHs, silver and cadmium in groundwater sampled from each well in this OU. Some metals were observed in shallow groundwater at greater than ambient conditions, but the deep groundwater is not impacted. Although widespread contamination was not identified, remedial action consisting of capping the landfill is being proposed to minimize the potential for future impacts to groundwater.

2.4.3 Operable Unit 4 - Pesticides Use and Storage Areas

Pesticides and their associated by-products (dioxins) are present in soil, sludge and groundwater at the site. In some locations, the concentrations of pesticides are very low, reported at levels just above the detection limits. Results for soils as well as PCB wipes analyzed for pesticides show low levels (less than 1 mg/kg) of these chemicals across the site. This would be expected where the chemicals have been routinely applied. It is likely that similar concentrations exist in soils in surrounding off-site areas where similar products are applied.

Only two localized areas of elevated pesticides have been identified: The area behind Building 9 at Door 17, where DDT ranged up to 35 mg/kg (sample PCB 09S5) in soil beneath asphalt; and the area near Building 30 where DDT was reported at 12 mg/kg (samples SB13). The concentration of a pesticide in groundwater (heptachlor at $0.016 \mu g/L$) exceeds the state standard (0.001 $\mu g/L$), but only slightly, at the location of the Building 30 septic tank.

The concentrations of dioxins in soils detected across the site are not unexpected given the history of pesticide application. The levels of dioxins present in the fence line soil samples SOFL13, SOFL14, SOFL19 and SOFL21 are elevated compared to the other site concentrations and reported urban-area concentrations. The level of 2,3,7,8-Dioxin detected in the fence line samples (up to 0.9 μ g/kg) is lower than the cleanup level set by U.S. EPA Region VII for dioxin contaminated Superfund sites (1 μ g/kg).

The presence of the Building 30 septic tank creates the potential for contaminant releases to the groundwater to occur, as evidenced by the presence of the pesticides in groundwater in this area.

2.4.4 Operable Unit 5 - Sanitary and Storm Sewer Systems

The contents of some sewer system features, such as the Building 5 sludge tank and Building 9 grease trap, represent potential sources of contamination if demolition of the sewer systems causes releases to the environment. Sludge tanks and grease pits in the sewer system have been cleaned out since the RI was conducted. The presence of TCE in the storm sewer water and the storm sewer outfall into Cameron Lake may have been caused by past discharges from Cameron Station activities, however the discharges have ceased.

Solvent contaminated groundwater (primarily TCE) was found in MWS15 in concentrations as high as 500 μ g/L near Building 2. The level of TCE exceeds the MCL of 5 μ g/L. Other contaminants, including 1,1-DCE which exceeds its respective MCL, are also present in the groundwater at this location.

A separate area of benzene and 1,2-DCA in groundwater was identified extending across the site from the western property boundary eastward approximately to Building 7. Detected levels of benzene ranged up to $800 \mu g/L$ in this area (MWS26) which exceeds the MCL of $5 \mu g/L$. The source of this contamination appears to be off-site, based on the ground water flow direction and the existence of this contamination at the upgradient property boundary. An alleged release from an underground storage tank located upgradient from Cameron Station is a possible source of this contamination, although no details concerning the potential off-site source have been made available by cognizant regulatory agencies. Remediation of contamination apparently originating off-site was not addressed in the FS because the source of contamination is beyond the Army's control, and remedial alternatives cannot be identified, screened or analyzed without first defining the source conditions. The installation has notified state and Federal agencies of this situation and will cooperate in efforts as required. Any potential future cleanup that may be required for this contamination will be addressed in a separate ROD.

2.4.5 Operable Unit 6 - Acid Pits

Petroleum waste may have been placed in the acid pit located at Building 23, the PX service station, however it is difficult to evaluate this due to widespread contamination at that site caused by the releases from the fuel tanks. At Building 9, the results from the acid pit soil sample indicate disposal of petroleum as well as lead-containing wastes. The effects of the acid pit disposal, however, appear to be isolated since no chemical contamination was detected in MWS12, located less than 50 feet downgradient from the Building 9 acid pit. TPHCs were found at up to 21,000 mg/kg, and lead at of 4,200 mg/kg.

2.4.6 Operable Unit 8 - PX Service Station and Building 2 Underground Storage Tanks

The RI and subsequent Interim Remedial Action (IRA) have identified significant soil and groundwater contamination at the PX service station from releases of petroleum products. Petroleum product was observed floating in the groundwater surface in thicknesses ranging up to several feet at some locations. The heterogeneous nature of the fill soils in this area and the

likelihood that more than one significant petroleum release has occurred over time explains the irregular distribution of product in the subsurface. The PX Service Station has been closed; all USTs have been emptied and are being removed. Based on evaluations in the RI Report, the product is estimated to be present over an area of approximately 80,000 square feet extending from the PX Service Station south across Parking Lot 2. A very localized occurrence of No. 2 fuel oil is present in the immediate vicinity of the Building 2 UST. The area of petroleum product in the soil at Building 2 is estimated at less than 400 square feet. The Building 2 UST and surrounding soil has been excavated and disposed off-site.

The IRA was initiated in June 1991 to comply with Virginia Regulation 680-13-02, Sections 6.4 and 6.5. The IRA included additional site characterization studies and efforts to remove petroleum hydrocarbons from the subsurface. IRA activities are being performed in concert with the RI/FS activities.

Several monitor wells installed within the PX service station have been used as petroleum product recovery wells. Approximately 2,000 gallons of product have been recovered to date. Product recovery through recovery wells and soil vapor extraction were cleanup remedies implemented at the PX Service Station in 1991-1992 as part of the IRA.

Groundwater contamination has resulted from petroleum releases at the PX service station USTs. Concentrations of benzene up to 2,800 μ g/L exceed the MCL of 5 μ g/L throughout an estimated area of approximately 150,000 square feet. The contamination does not extend to the downgradient property boundary. Groundwater may have been impacted in the vicinity of the Building 2 UST, however, chemicals of concern (BTEX) have not been detected at monitor well B2-1 located 75 feet downgradient from the UST. Clay soils underlying the tank appear to have minimized the impacts of this release.

2.5 SUMMARY OF SITE RISKS

2.5.1 Risk Assessment

No noncancer health effects are expected from exposure to potentially site-related chemicals. However, exposure to site-related chemicals may result in excess cancer risks in exposed populations. These risks are likely to be overestimated due to inherently conservative

assumptions in the risk assessment. Cancer risks are very small numbers, so they are expressed in exponential notation, i.e., a one in a million cancer risk is stated as a risk of 1×10^6 or 1E-6.

The excess cancer risk to current children eating fish from Cameron Lake could be as high as 4E-5. This risk is due almost entirely to PCB-1260 (3E-5), with smaller contributions from dioxins (1E-5) and gamma chlordane (1E-6) in fish. The Food and Drug Administration's tolerance level for PCBs in fish is 2 mg/kg, approximately ten times the level detected in Cameron Station fish. Cancer risk estimates may also be high based on the assumption that the child eats sixty percent of two, three-pound fish (all of the edible portion of each fish he or she catches).

Current maintenance workers that come in contact with fenceline soil containing dioxins may experience an excess cancer risk as high as 2E-6 from dermal contact with this soil.

Future child residents may experience excess cancer risk as high as 7E-5. This population may experience a cancer risk from fish consumption (4E-5) similar to that of current child visitors that eat fish caught during the Cameron Lake fishing derby. Future adult and child residents may also experience risks as high as 3E-5 through ingestion of contaminated yard soil. Beryllium, dieldrin, dioxins, heptachlor, and PCB-1260 are the primary sources of this cancer risk. Dioxins and PCB-1260 are estimated to pose a total excess cancer risk of 6E-6 in future child residents exposed to yard soil by the dermal route.

Ingestion of soil during visits by future child residents to the landfill may results in an excess cancer risk as high as 1E-6 from exposure to beryllium and benzo(a)pyrene.

Future resident adults may experience an excess cancer risk as high as 3E-5 from ingestion and dermal contact with contaminated yard soil. Most of this risk is contributed by dioxins through dermal contact with soil.

Beryllium appears to be present in soil at concentrations that represent ambient conditions. Therefore, it is uncertain that risks due to exposure to beryllium in soil are site-related. All other estimated excess cancer risks appear to be site-related.

Although the baseline risk assessment was done in a conservative manner, and the above risks were identified, remediation would not be required by USEPA under current guidelines for a

Superfund site. Risks in the range of 1E-4 to 1E-6 are considered by the EPA risk managers, taking into account site specific factors, but they do not warrant remediation. Risks greater than 1E-4 require remediation. On this basis, no risk-driven remediation of the site is warranted.

2.5.2 Ecological Assessment

An ecological assessment focussing on aquatic environments found significant aquatic resources in Cameron Lake and possibly the adjacent surface water features. No rare, threatened, or endangered species or suitable habitat for these species were found to be present on Cameron Station. Levels of some metals and PAHs in Cameron Lake sediment, and some metals in Cameron Lake and adjacent surface waters, could cause adverse effects on aquatic biota. Fish in Cameron Lake were found to contain some potentially site-related compounds; however, this represents very low levels of uptake from sediments by fish. The adjacent surface water and sediment quality is likely due to upstream sources and not site releases. Areas where significant ecological resources exist are not likely to be adversely impacted by planned future site uses. The ecological assessment did not identify the need for any remediation.

2.6 HUMAN HEALTH RISKS

2.6.1 Introduction

A Baseline Risk Assessment was prepared to analyze the potential adverse human health effects (current and future) resulting from exposures to site-related chemicals found at Cameron Station. The full risk assessment was presented as Chapter 6 of the document entitled Cameron Station Remedial Investigation Draft Report, August, 1992. The procedures used in this risk assessment were consistent with USEPA guidance, the Risk Assessment Guidance for Superfund, Volume-Human Health Evaluation Manual (RAGS) (USEPA 1989a) and supplemental guidance (USEPA 1991b), the Guidance for Data Useability in Risk Assessment (Part A) (USEPA 1990), the Exposure Factors Handbook (USEPA 1989b), and the Superfund Exposure Assessment Manual (USEPA 1988b).

The location, description, and history of the Cameron Station site are presented in Section 2.1. Features of the site pertinent to the risk assessment are shown in Figure 2-2. Characteristics of the physical setting of the site relevant to potentially exposed populations are presented in the Exposure Assessment section below.

Activities performed in support of the Cameron Station RI included a site reconaissance, geophysical surveys, soil gas surveys, UST integrity testing, an asbestos survey of buildings, an assessment of PCB transformers, studies of sanitary and storm sewers, a survey of biological contamination from pigeon roosting, and sampling and analysis of environmental media.

2.6.2 Chemicals of Potential Concern

Surface and subsurface soil, groundwater, surface water, sediment, and fish tissue were the media of concern at Cameron Station.

The following conservative process was applied to select the eighty-one chemicals of potential concern presented in Table 2-1:

- As a general rule, any chemical detected at least once in any sampled medium where human exposures or releases to the environment may occur was considered a candidate chemical of potential concern.
- Comparison of sample concentrations with background concentrations was not used to select chemicals of potential concern. However, beneficial minerals (iron, calcium, zinc, etc.) were excluded if the estimated intake from site media did not exceed the National Research Council's health criterion. Also, essential nutrients that had available inhalation reference doses or slope factors (hexavalent chromium) were retained as chemicals of potential concern. Any unacceptable risks they may contribute were evaluated as an uncertainty in the risk assessment.
- Laboratory artifacts or chemicals determined to be blank contaminants unrelated to known site activities were not selected as chemicals of potential concern if the rules outlined above were satisfied.

Exposure point concentrations of the chemicals of potential concern on which the risk assessment was based are presented by environmental medium and exposure point in Appendix B.

2.6.3 Exposure Assessment

Exposure scenarios used for estimation of human risk at Cameron Station are presented in Table 2-2.

For purposes of the exposure assessment, the Cameron Station site was defined as the area within Cameron Station property boundaries, the segments of Holmes and Backlick Runs adjacent to the property, and Cameron Run down to the most distant location where samples were collected for the RI.

A landfill is present on the southern side of the site and is considered a part of the site. Currently, it is mostly unvegetated and represents a potential source of exposure to airborne soil particles at the landfill or at locations downwind of the landfill due to wind erosion. Another potential source of airborne soil particles is an unpaved road located along the west and southwest boundaries of the site used by service vehicles and cars driven by site visitors. The surface of this service road may contain residue from fly ash or road oil of unknown chemical concentration or origin.

An area around Building 23 (PX service station) where TPHC contamination is present in subsurface soil is likely to be a source of airborne releases of VOCs commonly associated with TPHC.

On-site areas where visitors are most likely to come in contact with potentially contaminated environmental media by one or more exposure routes include the following:

- Cameron Lake
- Streams
- Ball field
- Picnic grounds
- Jogging trail

The commissary, the administration building, and the various offices on the site are areas that are accessible to visitors but are not areas where exposures to contaminants are probable. The site history of these areas suggests that they have not been impacted by previous chemical releases. These areas are also upwind from major site sources.

Several site areas were found to be impacted by site chemicals but, due to their remote location or limited accessibility, were not judged to be significant areas where human exposure could potentially occur under the current and future land use scenarios. These included covered acid pits, septic tanks and ash piles.

The on-site lake (Cameron Lake) and streams near the site (Backlick Run, Holmes Run and Cameron Run) are areas where children may wade and play. Surface water and sediments in these areas may contain chemicals released from the site.

Activities by maintenance workers could lead to direct exposures to chemicals in the identified areas. Areas of potentially contaminated soil near Building 30 and along fencelines are potential exposure points for these maintenance workers.

Future use of the site is planned to alter the current physical setting of the northern area of the site. Land use in areas where buildings are presently located is planned to switch from commercial/light industrial to residential. Contaminated soils in some of these areas where exposures do not occur now may become yards and recreational areas where human exposure to contaminants in soil can occur in the future. The potential for VOC releases to the air from subsurface soil and groundwater contamination could increase as a result of removal of overlying pavement and buildings.

Several areas associated with the site are not planned to change under site reuse. On-site recreational areas are planned to remain unaltered due to their present location in the flood plain of surrounding streams and the high land use priority placed on recreational use of those areas. No specific plans are available for a different use of the landfill area. However, it is unlikely that the landfill will be used as a site for construction of residential homes or commercial buildings because of its location near the railroad tracks. Due to natural site topography and the lack of alternative channels for transporting runoff, it is also likely that the current status of streams adjacent to the site will not change.

Chemical emission and air dispersion modeling were performed for specific areas where there were known sources of contaminants and where releases of contaminated soil particles or volatile organic compounds to air from contaminated soils and groundwater were likely to occur. Particulate emissions were considered likely to occur from bare, unvegetated, erodible, contaminated surface soils and VOC emissions were considered likely to occur from areas that are not covered by buildings, concrete, or asphalt where surface and subsurface soils or groundwater were contaminated with VOCs. The first type of area occurred at the landfill, the service road, and soil near Building 30. The second type of area included the area near Building 23 where subsurface TPHC contamination exists and the two areas where groundwater is contaminated with trichloroethylene, benzene, and other VOCs under a planned future housing area.

Only very small soil particles are inhaled and retained in the lungs and are a concern as a health risk (USEPA 1989a). These are referred to as "PM10" particles or particles with an aerodynamic diameter of 10 microns or less. Releases and ambient outdoor air concentrations of contaminated PM10 particles from bare, unvegetated, erodible, contaminated surface soils were estimated for wind erosion and vehicle traffic disturbances using the method of Cowherd et al. (1985) and a simple box (Hanna et al. 1982) or Gaussian plume model (Turner 1970, USEPA 1988b).

Emissions of VOCs to air from TPHC-contaminated soil were conservatively estimated using the Shen soil volatilization model (Shen 1981). Emissions of benzene and trichloroethylene to air from groundwater were estimated using a model developed by USEPA for Resource Conservation and Recovery Act (RCRA) facility investigations (USEPA 1989c). A simple box (Hanna et al. 1982) or Gaussian plume model (Turner 1970) was used to conservatively estimate exposure point concentrations for VOCs using model emission estimates and local wind speed.

Exposure time, frequency, and duration terms used in the Cameron Station exposure assessment are presented in Tables 2-3 (inhalation terms) and 2-4 (ingestion and dermal contact terms).

2.6.4 Toxicity Assessment

Oral and inhalation cancer slope factors (CSFs) have been developed by EPA's Carcinogen Risk Assessment Verification Endeavor (CRAVE) Work Group for estimating excess lifetime cancer risks associated with exposure to potentially carcinogenic chemicals. CSFs, which are expressed

in units of (mg/kg-day)⁻¹, are multiplied by the estimated intake of a potential carcinogen in mg/kg-day to provide an upper-bound estimate of the excess lifetime cancer risk associated with exposure at that intake level. The term "upper bound" reflects the conservative estimate of the risks calculated from the CSF. Use of this approach makes underestimation of the actual cancer risk highly unlikely. CSFs are derived from the results of human epidemiological studies or chronic animal bioassays to which animal-to-human extrapolation and other uncertainty factors have been applied.

In addition, EPA assigns a cancer weight-of-evidence category to each chemical in order to reflect the overall confidence that the chemical is likely to cause cancer in humans. These categories and their meanings are summarized below.

Category	Meaning	<u>Basis</u>
A	Known human carcinogen	Sufficient evidence of increased cancer incidence in exposed humans.
В1	Probable human carcinogen	Limited human data are available.
В2	Probable human carcinogen	Sufficient evidence of increased cancer incidence in animals, but lack of data or insufficient data from humans.
С	Possible human carcinogen	Suggestive evidence of carcinogenicity in animals.
D	Cannot be evaluated	No evidence or inadequate evidence of cancer in animals or humans.

Oral reference doses (RfDs) and inhalation reference concentrations (RfCs) have been developed by EPA's RfD/RfC Work Group for indicating the potential for adverse health effects from exposure to chemicals exhibiting noncarcinogenic effects. RfDs, which are expressed in units of mg/kg-day, and RfCs, which are expressed in units of mg/m³, are estimates of exposure

levels for humans, including sensitive individuals, that are likely to be without an appreciable risk of noncarcinogenic, deleterious effects during a lifetime. Estimated levels of exposure to a chemical in environmental media (e.g., the amount of a chemical ingested from contaminated drinking water) can be compared to the RfD or RfC. RfDs/RfCs are derived from human epidemiological studies or animal studies to which uncertainty factors have been applied (e.g., to account for the use of animal data to predict effects on humans). These uncertainty factors help ensure that the RfDs/RfCs will not underestimate the potential for adverse noncarcinogenic effects to occur.

Table 2-5 summarizes the carcinogenic effects and slope factors and Table 2-6 summarizes the noncarcinogenic effects and critical toxicity values for contaminants of potential concern at Cameron Station.

2.6.5 Risk Characterization

Appendix C presents carcinogenic and noncarcinogenic risks by chemical for each exposure medium and pathway and summarizes total pathway risk.

Noncarcinogenic Effects

Potential concern for noncarcinogenic effects of a single contaminant in a single medium is expressed as the hazard quotient (HQ), which is the ratio of the estimated level of exposure derived from the contaminant concentration in a given medium to the contaminant's RfD or RfC. By adding the HQs for all contaminants within a given medium or across all media to which a given population may reasonably be exposed, the Hazard Index (HI) can be generated. The HI provides a useful reference point for gauging the potential significance of multiple contaminant exposures within a single medium or across media.

No HIs exceeded 1.0 for any population at the Cameron Station site. Therefore, no noncancer health effects are expected from exposure to potentially site-related chemicals.

Carcinogenic Risks

Excess lifetime cancer risks are determined by multiplying the intake level by the cancer slope factor. These risks are probabilities that are generally expressed in scientific notation (for example, 1 x 10⁻⁶ or 1E-6). An excess lifetime cancer risk of 1 x 10⁻⁶ indicates that, as a plausible upper bound, an individual has a one in one million chance of developing cancer as a result of site-related exposure to a carcinogen over a 70-year lifetime under the specific exposure conditions at a site.

Table 2-7 presents estimated total cancer risks for each population exposed at a sub-location of Cameron Station where at least one pathway-specific risk is likely to be 1E-6 or greater.

Under current land use conditions, only two populations are subject to potential increased cancer risk due to exposure to contaminated environmental media at Cameron Station. Maintenance workers exposed to fenceline soils may be subject to an increased excess cancer risk of 2E-6 as a result of dermal exposure to dioxin-contaminated soils in this area. Children may be exposed to an increased excess cancer risk of 4E-5 from ingesting fish caught in Cameron Lake that contained PCB-1260 and dioxins. This risk is likely to be significantly overestimated due to values assumed for exposure calculations and estimation of cancer risks for less than lifetime exposures. Sediment-bound PCB-1260 and dioxins in Cameron Lake are likely to be the source of these chemicals in fish tissue. However, these chemicals were not detected in Cameron Lake sediment. Based on model estimates of air concentrations, subsurface contamination by trichloroethylene and VOCs associated with TPHCs does not present excess risks to exposed individuals that exceed 1E-12.

Future child residents may experience elevated excess cancer risks (7E-5) from eating fish from Cameron Lake and ingesting and contacting yard and landfill soils. Future adult residents may experience elevated cancer risks (3E-5) from ingestion and dermal contact with contaminated yard soil. These risks are due to the presence of PCB-1260 in fish (for children), and beryllium, dieldrin, dioxins, heptachlor, and PCB-1260 in soil where future yards may be located. Based on model estimates of air concentrations, subsurface concentrations of benzene, trichloroethylene, and VOCs associated with TPHCs do not present excess risks to exposed

individuals that exceed 1E-12.

2.6.6 Uncertainties in the Baseline Risk Assessment

An analysis of significant sources of uncertainty in the baseline risk assessment indicates that total site risks may be overestimated due primarily to: (1) The use of conservative values for exposure factors; (2) Calculation of risks for infrequently detected chemicals; and (3) Calculation of risk for chemicals (i.e., beryllium) present at site locations at concentrations not statistically different from ambient levels.

2.7 ENVIRONMENTAL RISKS

2.7.1 Ecological Risk Under Current Land Use Conditions

No significant ecological resources exist in the terrestrial environment at the Cameron Station site as a result of its developed nature. Significant aquatic resources exist in Cameron Lake and surface streams on the south and east borders of the site. No critical habitats nor endangered species were identified at the site. No adverse effects, therefore, would result to critical habitats or endangered species from site conditions.

A productive fishery exists in Cameron Lake. Cameron Lake is also used by migratory waterfowl. Transient individuals of native species of wildlife may use streams near the site, although none were observed during site reconnaissance.

Seven metals (aluminum, barium, beryllium, chromium, copper, iron, and zinc) and three organic compounds (fluoranthene, phenanthrene and pyrene) are elevated in Cameron Lake sediments by a factor of 10 over concentrations observed in sediment at background stream reference locations. Evidence of effects levels at other sites indicates that concentrations of copper, lead and zinc at or below levels observed in Cameron Lake sediments may cause adverse effects in biota, primarily benthic organisms, exposed to contaminated sediments.

Ambient water concentrations of aluminum, cadmium, silver and zinc in nearby streams exceed ambient water quality criteria for protection of aquatic life and toxic levels in bioassays. These are more likely due to releases from upstream sources than from Cameron Station. Cadmium,

lead, silver, and zinc concentrations in Cameron Lake also exceeded AWQCs, but their

concentrations were typical of those found in urban runoff.

2.7.2 Ecological Risk Under Future Land Use Conditions

Areas where significant ecological resources exist near this site are unlikely to be impacted

adversely by planned reuse. Waterfowl, urban wildlife and transient native species are likely

to relocate to other nearby areas in response to any changes affecting aquatic resources at the

site.

2.8 DESCRIPTION OF ALTERNATIVES

Selection of the remedial action alternatives was conducted through a systematic screening

process described in detail in the FS report. The alternatives were developed from technology

types and process options that can be effectively implemented at the site. Once the alternatives

were developed, they were evaluated for effectiveness, implementability and cost. The remedial

alternatives discussed in this section represent alternatives retained after this screening process.

The Army's preferred alternative for remediating each OU is indicated. Preferred alternatives were selected based on a comparative analysis of all alternatives described later in this

document.

2.8.1 OU-1 PCB Transformer Service, Storage and Spill Areas

Alternative 1-1:

No Action.

Alternative 1-2:

Excavation and Off-Site Disposal in RCRA Landfill. (Preferred)

Alternative 1-3:

Excavation and Off-Site Thermal Oxidation.

Alternative 1-1:

No Action

Estimated Capital Cost: \$0

Estimated Annual O&M Cost: \$0

Estimated Present Worth: \$0

Estimated Duration: None

The Superfund program requires that the "no action" alternative be evaluated at every site to establish a baseline for comparison. The no action alternative will involve no remedial action. The site will remain in its current condition. Although significant PCB contamination does not exist, remediation is being proposed since the site will be made available for unrestricted use.

Alternative 1-2: Excavation and Off-Site Disposal in RCRA Landfill (Preferred)

Estimated Capital Cost: \$16,300 Estimated Annual O&M Cost: \$0 Estimated Present Worth: \$16,300 Estimated Duration: one month

Approximately 10 cubic yards (CY) of PCB and pesticide-containing material in OU-1 will be excavated and removed to an off-site, RCRA Subtitle C landfill. The excavated area will be backfilled with clean soil and covered with asphalt. Placement of the wastes in an off-site permitted landfill will reduce the mobility of PCBs and pesticides.

Alternative 1-3: Excavation and Off-Site Thermal Oxidation

Treatment Components:

Estimated Capital Cost: \$38,100 Estimated Annual O&M Cost: \$0 Estimated Present Worth: \$38,100 Estimated Duration: one month

This alternative is similar to Alternative 1-2 except that the excavated materials will be treated by an off-site RCRA permitted thermal treatment facility. The off-site thermal treatment facility will comply with emission standards for incinerators. The resulting ash will be disposed of by the thermal treatment facility. Thermal treatment of the contaminated wastes provides multiple benefits of reducing the toxicity and volume of PCBs and pesticides.

2.8.2 OU-3 Landfill

Alternative 3-1:

No Action.

Alternative 3-2:

Soil Capping, and Monitoring the Landfill. (Preferred)

Alternative 3-1:

No Action

Estimated Capital Cost: \$0

Estimated Annual O&M Cost: \$0

Estimated Present Worth: \$0

Estimated Duration: None

The Superfund program requires that the "no action" alternative be evaluated at every site to establish a baseline for comparison. The no action alternative will involve no remedial action. The site will remain in its current condition. Results of the baseline risk assessment indicated that no excess cancer risk was associated with the landfill area. Although widespread contamination was not identified, remedial action consisting of capping the landfill is being proposed to minimize the potential for future impacts to groundwater.

Alternative 3-2:

Soil Capping, and Monitoring the Landfill (Preferred)

Estimated Capital Cost: \$36,900

Estimated Annual O&M Cost: \$7,700

Estimated Present Worth: \$96,400

Estimated Duration: Approximately one year

The total area of the soil cap will be approximately 20,000 square feet. The conceptual design of the cap includes from bottom to top: an 18-inch-thick layer of compacted native soil, a 6-inch-thick layer of topsoil, and a vegetation cover. The cap will be designed to meet the state requirements for the closure of unpermitted construction/demolition/debris landfills. The soil cap will reduce leachate generation and thus protect groundwater.

2.8.3 OU-4 Pesticides Use and Storage Area

Alternative 4-1:

No Action.

Alternative 4-2:

Excavation and Off-Site Disposal in RCRA Landfill. (Preferred)

Alternative 4-3:

Excavation and Off-Site Thermal Oxidation.

Alternative 4-1:

No Action

Estimated Capital Cost: \$0

Estimated Annual O&M Cost: \$0

Estimated Present Worth: \$0

Estimated Duration: None

The Superfund program requires that the "no action" alternative be evaluated at every site to establish a baseline for comparison. The no action alternative will involve no remedial action. The site will remain in its current condition.

Alternative 4-2:

Excavation and Off-Site Disposal in RCRA Landfill (Preferred)

Estimated Capital Cost: \$27,000

Estimated Annual O&M Cost: \$0

Estimated Present Worth: \$27,000

Estimated Duration: one month

Approximately 20 cubic yards (CY) of pesticides containing wastes in and around the Building 30 septic tank and the septic tank itself will be excavated and removed to an off-site, RCRA Subtitle C landfill. The excavated area will be backfilled with clean soil. Placement of the wastes in an off-site permitted landfill will reduce the mobility of pesticides.

Alternative 4-3:

Excavation and Off-Site Thermal Oxidation

Estimated Capital Cost: \$72,000
Estimated Annual O&M Cost: \$0
Estimated Present Worth: \$72,000
Estimated Duration: one month

This alternative is basically the same as Alternative 4-2 except that the excavated materials will be treated by an off-site RCRA permitted thermal treatment facility. The off-site thermal treatment facility will comply with emission standards for incinerators. The resulting ash will be disposed of by the thermal treatment facility. Thermal treatment of the contaminated wastes provides multiple benefits of reducing the toxicity and volume of pesticides.

2.8.4 OU-5 Sanitary and Storm Sewer Systems

Alternative 5-1:

No Action.

Alternative 5-2:

Groundwater Collection Followed by Air Stripping and Discharge

to Surface Water (Preferred)

Alternative 5-3:

Groundwater Collection Followed by Liquid Phase Carbon

Adsorption and Discharge to Surface Water

Alternative 5-1:

No Action

Estimated Capital Cost: \$0

Estimated Annual O&M Cost: \$7,700 Estimated Present Worth: \$118,400

Estimated Duration: None

The Superfund program requires that the "no action" alternative be evaluated at every site to establish a baseline for comparison. The no action alternative will involve no remedial action other than annual VOC analyses of groundwater samples collected from existing monitoring wells. There will be no reduction in toxicity, mobility or volume of contaminants except through natural fate and transport processes.

Alternative 5-2:

Groundwater Collection Followed by Air Stripping and Discharge to Surface Water (Preferred)

Estimated Capital Cost: \$213,000

Estimated Annual O&M Cost: \$53,400 Estimated Present Worth: \$1,034,200

Estimated Duration: Thirty years

Trichloroethene (TCE) contaminated groundwater in OU-5 will be pumped at a flow rate of approximately 40 gallons per minute (gpm) and remediated with an air stripping unit to remove VOCs. The need for pretreatment for removal of certain metals will be evaluated in pilot studies and if needed, would be implemented. The treated groundwater will be discharged to Backlick Run via an underground pipe. It is estimated that the volatile organic emission rate from the air stripper would be approximately 0.3 lb/day. The air discharged from the stripper will be routed through a granular activated carbon filter for removal of the VOCs. No VOCs, therefore, will be discharged to the atmosphere at the site. Reduction in groundwater contamination is provided by this alternative. Since this remedial action would be ongoing at the time of property transfer, transfer documents will reflect the remediation of OU-5. The Army has selected Alternative 5-2 with carbon treatment of the air discharge stream after considering the Alexandria Health Department's comments concerning the on-site discharge of VOCs associated with Alternative 5-2 without such treatment. Alternative 5-2 (without treatment of the air discharge) had been identified as the preferred alternative in the Proposed Plan. The estimated rate of VOC emissions to the atmosphere at the site from the air stripper had been judged not to represent a significant environmental or human health concern. In response to the Health Department's request, however, carbon treatment of the air discharge has been added to the remedial alternative.

The level of protectiveness from the revised Alternative 5-2 will be the same as that from Alternative 5-3 (no on-site emissions) while providing a significant cost savings. In fact, it is estimated that the present worth of Alternative 5-2 with carbon treatment of the air discharge may be less than the estimated present net worth of Alternative 5-2 without the carbon treatment of the air discharge due to reductions in the overall O&M costs over the life of the project.

Alternative 5-3:

Groundwater Collection Followed by Liquid Phase Carbon

Adsorption and Discharge to Surface Water

Estimated Capital Cost: \$234,900

Estimated Annual O&M Cost: \$56,100 Estimated Present Worth: \$1,097,300

Estimated Duration: Thirty years

This alternative is similar to Alternative 5-2 except that the extracted groundwater will be treated by a liquid phase carbon adsorption unit (two canisters in series). The carbon consumption rate is estimated to be approximately 3 lbs/day, which will not pose unacceptable health risks to the public. The spent activated carbon will be shipped to the carbon supplier for off-site regeneration. Reduction in groundwater contamination is also provided by this alternative.

2.8.5 OU-6 Acid Pits

Alternative 6-1:

No Action.

Alternative 6-4:

Excavation and Off-Site Thermal Oxidation and Solidification.

(Preferred)

Alternative 6-1:

No Action

Estimated Capital Cost: \$0

Estimated Annual O&M Cost: \$0

Estimated Present Worth: \$0

Estimated Duration: None

The Superfund program requires that the "no action" alternative be evaluated at every site to establish a baseline for comparison. The no action alternative will involve no remedial action. The site will remain in its current condition.

Alternative 6-4:

Excavation and Off-Site Thermal Oxidation and Solidification

(Preferred)

Estimated Capital Cost: \$44,600 Estimated Annual O&M Cost: \$0 Estimated Present Worth: \$44,600 Estimated Duration: one month

Approximately ten cubic yards (CY) of TPHC and metal contaminated soils will be excavated from two acid pit areas for disposal in a RCRA permitted thermal treatment facility. The excavated area will be backfilled with clean soil. The off-site thermal treatment facility will comply with technical standards for incinerators. Thermal treatment of the contaminated wastes reduces the toxicity and volume of organic compounds. Metals in the ash will be solidified before disposal. Thermal treatment of the contaminated wastes reduces the toxicity and volume of organics. Solidification is also widely used to immobilize metal contents in the waste.

2.8.6 OU-8 PX Service Station and Building 2 Underground Storage Tanks

Alternative 8-1:

No Action.

Alternative 8-2:

Groundwater Collection Followed by Air Stripping System and

Discharge to Surface Water.

Alternative 8-3:

Groundwater Collection Followed by Liquid Phase Carbon

Adsorption and Discharge to Surface Water.

Alternative 8-4:

Groundwater Collection Followed by Air Stripping and In-Situ

Bioremediation. (Preferred)

2-27

Alternative 8-1:

No Action

Estimated Capital Cost: \$0

Estimated Annual O&M Cost: \$7,700 Estimated Present Worth: \$118,400

Estimated Duration: None

The Superfund program requires that the "no action" alternative be evaluated at every site to establish a baseline for comparison. The no action alternative will involve no remedial action other than annual VOC analyses of groundwater samples collected from existing monitoring wells. There will be no reduction in toxicity, mobility or volume of contaminants except through natural fate and transport process.

Alternative 8-2:

Groundwater Collection Followed by Air Stripping and Discharge to Surface Water

Estimated Capital Cost: \$148,200

Estimated Annual O&M Cost: \$53,400 Estimated Present Worth: \$750,200

Estimated Duration: Approximately seventeen years

Petroleum contaminated groundwater (BTEX) in OU-8 will be pumped at a rate of approximately 40 gallons per minute (gpm) and remediated with an air stripping unit to remove volatile organics. The treated groundwater will be discharged to Backlick Run via an underground pipe. It is estimated that the volatile organic emission rate from the air stripping system will be approximately 12 lbs/day which will not pose unacceptable health risks to the public. Reduction in groundwater contamination is provided by this alternative.

Alternative 8-3:

Groundwater Collection Followed by Liquid Phase Carbon Adsorption and Discharge to Surface Water

Estimated Capital Cost: \$184,500

Estimated Annual O&M Cost: \$171,300 Estimated Present Worth: \$2,115,800

Estimated Duration: Approximately seventeen years

This alternative is similar to Alternative 8-2 except that the extracted groundwater will be treated by a liquid phase carbon adsorption unit (two canisters in series). The carbon consumption rate is estimated to be approximately 120 lbs/day (assuming 10 % adsorption capacity). The spent activated carbon will be shipped to the carbon supplier for off-site regeneration. Reduction in groundwater contamination is also provided by this alternative.

Alternative 8-4:

Groundwater Collection Followed by Air Stripping and In-Situ Bioremediation (Preferred)

Estimated Capital Cost: \$293,700

Estimated Annual O&M Cost: \$83,100 Estimated Present Worth: \$935,400

Estimated Duration: Approximately ten years

BTEX contaminated groundwater will be extracted from downgradient of the aquifer at a flow rate of approximately 40 gpm. The extracted groundwater will be stripped to remove dissolved VOCs. Oxygen (delivered as a dilute solution of hydrogen peroxide) and nutrients (such as nitrogen and phosphorus), if needed, will be introduced to the treated effluent using a surface mixing tank. The oxygen-enriched groundwater will then be reinjected upgradient of the contaminated aquifer. When the oxygen-enriched injected water flows through the contaminated aquifer, the presence of the dissolved oxygen and nutrients should stimulate biodegradational activities of microorganisms in the aquifer thus enhancing the naturally occurring biological reactions. The organic contaminants (such as BTEX) in the groundwater will be destroyed by the stimulated biological reaction. This alternative will effectively reduce the toxicity and volume of the contaminants in the groundwater. Since this remedial actin will be ongoing at the time of property transfer, transfer documents will reflect remediation of OU-8.

2.9 SUMMARY OF THE COMPARATIVE ANALYSIS OF ALTERNATIVES

Selection of preferred alternatives for each OU were made after performing a detailed analysis for all alternatives described above. Each alternative was evaluated against the nine criteria established by EPA under CERCLA to evaluate potential remedial process alternatives. The nine evaluation criteria are:

- Overall protection of human health and the environment;
- Compliance with ARARs;
- Long-term effectiveness;
- Reduction of toxicity, mobility or volume;
- Short-term effectiveness;
- Implementability;
- Cost;

- State acceptance; and
- Community acceptance.

Two criteria, overall protection of human health and the environment; and compliance with ARARs, are threshold factors. Two criteria, state acceptance and community acceptance, are modifying considerations. The remaining criteria are the primary balancing factors. A brief description of each criteria is provided in Appendix D.

For each operable unit, based upon current information, the preferred alternative appears to provide the best balance with respect to the nine criteria. This section profiles the performance of the preferred alternatives against these nine criteria. Results of the evaluation are further summarized in Tables 2-8 through 2-13.

2.9.1 Overall Protection of Human Health and the Environment

The no-action alternative does not protect human health or the environment from potential risks posed by the contaminated materials, and thus it is not considered further in this analysis as an option for any OU on the site. Alternatives 1-2, 1-3, 4-2, 4-3, and 6-4 will achieve the soil remediation objective of preventing worker exposure to contaminated soils and protecting the human health and the environment by reducing the potential risk from direct contact with contaminants. The soil cap applied in Alternative 3-2 will reduce direct contact with the landfilled materials, minimize surface water infiltration and thus promote groundwater protection, and meet the landfill closure requirements.

Alternatives 5-2, 5-3, 8-2, 8-3 and 8-4 will achieve the remedial objectives for groundwater. The preferred alternative 5-2 is more cost-effective than alternative 5-3. The preferred alternative 8-4 provides the fastest time for groundwater restoration.

The no-action alternative provides no remedial measures, no risk reductions, and does not achieve remedial action objectives and is not evaluated further.

2.9.2 Compliance with Applicable or Relevant and Appropriate Requirements (ARARs)

It is expected that Alternatives 1-2, 1-3, 3-2, 4-2, 4-3, and 6-4 will meet action-specific ARARs. The Federal Safe Drinking Water Act (SDWA) provides for protection of human health from contaminants in drinking water by establishing MCLs. These requirements will be met under Alternatives 5-2, 5-3, 8-2, 8-3 and 8-4. A list of state and Federal ARARs attained by the preferred alternatives for each operable unit are included in Tables 2-14 through 2-16.

2.9.3 Long-Term Effectiveness and Permanence

Under Alternatives 1-2, 1-3, 4-2, 4-3, and 6-4, the contaminated materials will be excavated and transported off-site for landfill or incineration. Therefore risk through direct exposure to the contaminated waste will be eliminated by meeting clean-up goals with these alternatives. Incineration provides the highest level of long-term effectiveness because contaminants will be destroyed or reduced in volume during incineration. The soil cap applied under Alternative 3-2 will minimize the direct exposure to the landfilled materials. Moreover, the soil cap and revegetation are likely to be effective in reducing the amount of infiltration and surface runoff.

Alternatives 5-2, 5-3, 8-2, 8-3 and 8-4 will provide for permanent removal of VOCs from the groundwater through the treatment processes. Under optimum operational conditions, Alternative 8-4 will offer the greatest long-term effectiveness because of quicker aquifer restoration by in-situ microbial reactions.

2.9.4 Reduction in Toxicity, Mobility and Volume of the Contaminants Through Treatment

Alternatives 1-2 and 4-2 will reduce the mobility of the contaminants through placement in an off-site RCRA landfill. Alternatives 1-3 and 4-3 provides the multiple benefits of reducing toxicity and volume of the PCBs and pesticides through thermal treatment (incineration). Alternative 6-4 will also reduce the toxicity and volume of petroleum contaminated soils. The ash generated by the incinerator will be solidified to immobilize the metal contents. Alternative 3-2 will reduce the mobility of the contaminants by reducing the potential for leaching.

The air stripping system applied in Alternatives 5-2 and 8-2 will effectively remove VOCs in groundwater, but will not reduce the toxicity, mobility or volume of contaminants. However, volume and mobility reduction will be achieved by carbon adsorption in Alternatives 5-3 and 8-3. Toxicity will be reduced if the spent carbon is thermally regenerated. Alternative 8-4 will effectively reduce the toxicity and volume of contaminants in groundwater through in-situ biological reactions.

2.9.5 Short-Term Effectiveness

There will be no risks to the public or environment during the implementation of the no-action alternatives because no remedial actions will occur. The short-term risks to the community and environment associated with Alternatives 1-2, 1-3, 3-2, 4-2, 4-3, and 6-4 will be minimal, because construction is expected to occur over a short period of time (from 1 month to 1 year) and risks could be mitigated through the use of dust control. Workers may be exposed to contaminants during implementation of these alternatives, but the risks will be minimized through the use of appropriate personal protection equipment.

Alternatives 5-2, 5-3, 8-2 and 8-3 involve the installation of extraction wells and construction of a groundwater treatment system on-site. Alternative 8-4 will have similar short-term effects as the above alternatives, but more extensive construction activities are required to implement this alternative (i.e., the injection system and a more extensive piping system will be installed). VOC emissions from the air stripping system in Alternatives 5-2 and 8-2 will not pose unacceptable risk to the community and the environment due to its relatively low emission rate. It is expected that treated water from Alternatives 5-2, 5-3, 8-2 and 8-3 will meet surface water standards and will be discharged to Backlick Run. It is estimated that the time required to reach the groundwater cleanup goals is approximately 30 years for Alternatives 5-2 and 5-3, approximately 17 years for Alternatives 8-2 and 8-3, and approximately 10 years for Alternative 8-4. Workers may be exposed to contamination during implementation of these alternatives, but the risks will be minimized through the use of appropriate personal protection equipment.

2.9.6 Implementability

Alternatives 1-2, 1-3, 4-2, 4-3 and 6-4 are proven and reliable for achieving the specified cleanup goals for soil contamination. Soil capping in Alternative 3-2 is also easy to implement. All other equipment, materials, and services for performance of these alternatives are readily available.

Alternatives 5-2, 5-3, 8-2 and 8-3 are relatively easy to implement. The proposed treatment technologies in Alternatives 5-2, 5-3, 8-2 and 8-3 are proven and reliable for removal of VOCs from contaminated groundwater. The equipment and materials needed for implementation of these alternatives are readily available. Alternative 8-4 will be slightly less implementable from a technical standpoint than other alternatives, because of the unpredictable in-situ microbial reactions. Alternative 8-4 will also be less implementable from an administrative standpoint than other alternatives, due to permits required for injection of oxygen- and nutrients-enriched groundwater. The effectiveness of these alternatives will be evaluated by sampling and analysis of groundwater and treated water. Treatability studies are recommended to verify and optimize the effectiveness of treatment processes in Alternatives 5-3, 8-3 and 8-4.

2.9.7 Costs

The present worth costs of the preferred alternatives are listed below:

Alternative 1-2	\$16,300
Alternative 3-2	\$96,400
Alternative 4-2	\$27,000
Alternative 5-2	\$1,034,200
Alternative 6-4	\$44,600
Alternative 8-4	\$935,400

The estimated present worth costs for the other remaining alternatives are as follow:

Alternative 1-3	\$38,100
Alternative 4-3	\$72,000
Alternative 5-1	\$118,400
Alternative 5-3	\$1,097,300

Alternative 8-1 \$118,400
Alternative 8-2 \$750,200
Alternative 8-3 \$2,115,800

The preferred alternatives have been judged to be cost effective means of achieving the necessary level of compliance with health protection and other regulatory requirements.

2.9.8 State Acceptance

The Commonwealth of Virginia has concurred with the preferred remedial alternatives outlined in this document.

2.9.9 Community Acceptance

Community acceptance is assessed in the attached Responsiveness Summary. The Responsiveness Summary provides a review of the public comments received on the Proposed Plan. Based on the limited number of public comments received, and modifications made to address these comments, community acceptance of the preferred remedial alternatives has been assumed.

2.10 THE SELECTED REMEDY

After careful consideration of the proposed alternatives, the Army's preferred alternative for each of the six OUs are listed below with estimated risks calculated during the FS (Life Systems, Inc., 1992). A description of these preferred alternatives is provided in Section 2.8 of this document. Any potential future cleanup that may be required for the benzene and 1,2-DCA contamination observed in OU-5 will be addressed in a separate ROD.

• OU-1, Alternative 1-2

Excavation of approximately 10 cubic yards of PCB and pesticide-containing material and disposal at an off-site RCRA Subtitle C landfill. The noncancer hazard index and cancer risk estimate associated with this alternative could not be recalculated due to unavailable slope factors.

OU-3, Alternative 3-2

Soil capping and monitoring of the approximately 20,000 square foot landfill. The cap will be designed to meet the state requirements for the closure of unpermitted construction/demolition/debris landfills. The noncancer hazard index associated with this alternative was calculated at 2.7E-2; the cancer risk was estimated at 1.6E-7.

• OU-4, Alternative 4-2

Excavation of approximately 20 cubic yards of pesticide-containing wastes around the Building 30 septic tank, removal of the septic tank, and disposal at a RCRA Subtitle C landfill. The noncancer hazard index associated with this alternative was calculated at 2.2E-8; the cancer risk was estimated at 2.6E-11.

• OU-5, Alternative 5-2

Groundwater Collection followed by Air stripping and discharge to Surface Water (with carbon treatment of air discharge) of TCE and 1,1-DCE contaminated groundwater near Building 2. The noncancer hazard index associated with this alternative was calculated at 2.2E-06 to 1.2E-08; the cancer risk was estimated at 3.6E-7 to 7.4E-10.

• OU-6, Alternative 6-4

Excavation of approximately 10 cubic yards of TPHC and metal contaminated soils from two acid pit locations for disposal in an off-site RCRA permitted thermal treatment facility. Metals in the ash will be solidified before disposal. The noncancer hazard index associated with this alternative was calculated at 2.6E-03; the cancer risk was estimated at 1.6E-8.

• OU-8, Alternative 8-4

Groundwater Collection followed by Air Stripping and In-Situ Bioremediation of BTEX contaminated groundwater near the Building 2 and the PX Service Station. The noncancer hazard index associated with this alternative was calculated at 9.6E-4 to 1.7E-5; the cancer risk was estimated at 8.5E-7 to 1.7E-9.

Tables 2-17 and 2-18 describe the cleanup goals that were determined in the FS to be appropriate for the various chemicals of concern and media type. However, the Virginia DEQ will make the final determination of the acceptable level of cleanup. For instance, OU-8 is being handled under the supervision of DEQ's Water Division per Virginia Regulation VR 680-13-02, Sections 6.3, 6.4, 6.5 and 6.6. Any potential future cleanup that may be required for the benzene and 1,2-DCA contamination observed in OU-5 will be addressed in a separate ROD.

2.11 STATUTORY DETERMINATIONS

Section 121 of CERCLA has established several statutory requirements and preferences for remedial actions. Under this section the selected remedy must:

- Be protective of human health and the environment;
- Comply with ARARs (or justify an ARAR waiver);
- Be cost-effective;
- Utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable; and
- Satisfy the preference for treatment that reduces toxicity, mobility, or volume as a principal element, or provide an explanation as to why this preference is not satisfied.

This section provides a brief discussion of how the selected remedy meets the statutory requirements and preferences of CERCLA Section 121 described above.

2.11.1 Protection of Human Health and the Environment

The selected remedy would protect the human health and the environment by reducing the potential risk from direct contact with contaminated soils. Capping of the landfill will reduce direct contact with the landfilled materials and promote groundwater protection by minimizing surface water infiltration. Remediation of the groundwater will reduce the discharge of contaminated groundwater to surface water pathways and lower contaminants in the groundwater to acceptable levels.

2.11.2 Compliance With ARARS

The selected remedial action will comply with all applicable or relevant and appropriate requirements. A complete listing of location-, action-, and chemical-specific ARARs, attained by each selected alternative, are included in Tables 2-14 through 2-16.

2.11.3 Cost-Effectiveness

The selected alternatives are cost-effective because they have been determined to provide overall effectiveness proportional to their costs. The selected alternatives are less costly than other alternatives, while providing a comparable level of protection, or they are expected to attain remedial goals in a shorter period of time while remaining comparable in cost to other alternatives.

2.11.4 Utilization of Permanent Solutions to the Maximum Extent Practicable

The Army has determined that the selected alternatives will offer the use of permanent treatment technologies to the maximum extent practicable while maintaining cost effectiveness. These alternatives provide long term protection to human health and the environment through removal, treatment or immobilization of the contaminated media. The USEPA and the Commonwealth of Virginia have reviewed and concurred with the selected remedy.

2.11.5 Preference for Treatment

The selected alternatives addresses the preference for treatment through groundwater recovery, air-stripping, and in-situ bioremediation. Contaminated soils excavated from the acid pits will

be treated utilizing thermal oxidation. In addition, capping of the landfill and placement of excavated soils in a RCRA C landfill will provide a reduction in mobility.

2.12 DOCUMENTATION OF SIGNIFICANT CHANGES

The preferred alternatives originally presented in the Proposed Plan are also the preferred alternatives selected in the Decision Document. The preferred alternative for OU-5 (Alternative 5-2) was modified to include carbon treatment of the air discharge after considering comments from the Alexandria Health Department. There have been no significant changes made to the remaining selected alternatives since the issuance of the Proposed Plan.

November 18, 1993

Table 2-1.	Summary of Chemicals of Potential Concern at Cameron Station
Category	Chemical
Volatile Organic Compounds (VOCs)	1,2-Dimethylbenzene/o-xylene 1,3-Dimethylbenzene/m-xylene Acetone Benzene Carbon disulfide Ethylbenzene Methylisobutyl ketone Toluene Trichlorofluoromethane Xylenes, total combined
Semivolatile Organics	2,4-Dimethylphenol 2-Methylnaphthalene 2-Methylphenol/2-cresol Acenaphthene Anthracene Benzo[a]anthracene Benzo[a]pyrene Benzo[b]fluoranthene Benzo[g,h,i]perylene Benzo[k]fluoranthene Benzoic acid Bis (2-ethylhexyl) phthalate Chrysene Dibenz[a,h]anthracene Dibenzofuran Fluoranthene Fluorene Indeno[1,2,3-c,d]pyrene Naphthalene Phenanthrene Phenol Pyrene
Pesticides/Polychlorinated Biphenyls (PCBs) and Derivatives	2,2-Bis (para-chlorophenyl)-1,1,1-trichloroethane 2,2-Bis (para-chlorophenyl)-1,1-dichloroethane 2,2-Bis (para-chlorophenyl)-1,1-dichloroethene 2,4,5-Trichlorophenoxyacetic acid 2,4-Dichlorophenoxyacetic acid 2-(2,4,5-Trichlorophenoxy) propionic acid Aldrin

Table 2-1. Si	ummary of Chemicals of Potential Concern at Cameron Station
Category	Chemical
Pesticides/Polychlorinated Biphenyls (PCBs) and Derivatives - continued	Alpha chlordane Beta-endosulfan/endosulfan II Dieldrin Endosulfan sulfate Endrin ketone Gamma-chlordane Heptachlor Heptachlor epoxide Lindane Methoxychlor PCB 1260
Chlorinated Dibenzo-p-dioxins	2,3,7,8-Tetrachlorodibenzo-p-dioxin/dioxin Total tetrachlorodibenzo-p-dioxins Total pentachlorodibenzo-p-dioxins Total hexachlorodibenzo-p-dioxins Total heptachlorodibenzo-p-dioxins Octachlorodibenzo-p-dioxin
Chlorinated Dibenzofurans	2,3,7,8-Tetrachlorodibenzofuran Total tetrachlorodibenzofurans Total pentachlorodibenzofurans Total hexachlorodibenzofurans Total heptachlorodibenzofurans Octachlorodibenzofuran
Inorganic Compounds ^(a)	Aluminum Arsenic Barium Beryllium Bromide Cadmium Chromium Cobalt Fluoride Lead Mercury Nickel Nitrate Nitrite Phosphate Silver Sulfate Thallium Vanadium

	Table 2-2. Exposure	e Scenarios Evaluated at Cameron Statio	n
Land Use	Exposed Population	Exposure Point/ Exposure Medium	Exposure Route
Current	Recreational Visitor (Child)	Volatile Organics in Air at Cameron Lake from TPH in Subsurface Soil	Inhalation
		Air Particulates at Cameron Lake from Landfill Surface Soil	Inhalation
		Cameron Lake Surface Water	Oral Dermal
·	·	Cameron Lake Sediment	Oral Dermal
		Cameron Lake Fish	Oral
		Air Particulates From Service Road Surface Soil at Picnic Ground	Inhalation
		Air Particulates From Service Road Surface Soil at Ballfield	Inhalation
Current	Recreational Visitor (Adult)	Volatile Organics in Air at Cameron Lake from TPH in Subsurface Soil	Inhalation
		Air Particulates at Cameron Lake from Landfill Surface Soil	Inhalation
		Air Particulates From Service Road Surface Soil at Picnic Ground	Inhalation
		Air Particulates From Service Road Surface Soil at Ballfield	Inhalation

	Table 2-2. Exposure	e Scenarios Evaluated at Cameron Statio	on
Land Use	Exposed Population	Exposure Point/ Exposure Medium	Exposure Route
Current	Adult Exerciser/Jogger	Air Particulates on Jogging Trail from Landfill Surface Soil	Inhalation
Current	Adult Exerciser/ Jogger - continued	Air Particulates at Ballfield From Service Road Surface Soil	Inhalation
Current	Gas Station Worker	Volatile Organics in Air from TPH ^(a) in Subsurface Soil	Inhalation
		Air Particulates from Landfill Surface Soil	Inhalation
Current	Outdoor Maintenance Worker	 Fenceline Surface Soil Surface Soil Behind Bldg. 30 Air Particulates from Surface 	Oral Dermal Oral Dermal Inhalation
Current	Wader (9-16 Yr. Old)	Soil Behind Bldg. 30 Holmes Run, Surface Water and Sediment Backlick Run, Surface Water and Sediment Cameron Run, Surface Water and Sediment	Oral Dermal Oral Dermal Oral Dermal

	Table 2-2. Exposure	Scenarios Evaluated at Cameron Station	n
Land Use	Exposed Population	Exposure Point/ Exposure Medium	Exposure Route
Future	Child Onsite Resident	Volatile Organics in Air at Cameron Lake from TPH in Subsurface Soil	Inhalation
		Air Particulates at Cameron Lake from Landfill	Inhalation
		Cameron Lake Surface Water	Oral Dermal
		Cameron Lake Sediment	Oral Dermal
		Cameron Lake Fish	Oral
	·	Volatile Organics in Air at Residence from TPH in Subsurface Soil	Inhalation
	,	Yard Soil at Future Residence	Oral Dermal
	·	• Landfill Soil	Oral Dermal
		Air Particulates From Service Road Surface Soil at Picnic Ground	Inhalation
		Air Particulates From Service Road Surface Soil at Ballfield	Inhalation
		Contaminated Soil by PCB Poles	Oral Dermal
			·

	Table 2-2. Exposure	e Scenarios Evaluated at Cameron Statio	on
Land Use	Exposed Population	Exposure Point/ Exposure Medium	Exposure Route
Future	Adult Onsite Resident	Volatile Organics in Air at Cameron Lake from TPH in Subsurface Soil	Inhalation
		Air Particulates at Cameron Lake from Landfill Surface Soil	Inhalation
		Volatile Organics in Air at Residence from TPH in Subsurface Soil	Inhalation
		Yard Soil at Future Residence	Oral Dermal
		Air Particulates From Service Road Surface Soil at Picnic Ground	Inhalation
		Air Particulates From Service Road Surface Soil at Ballfield	Inhalation
		Air Particulates on Jogging Trail from Landfill Surface Soil	Inhalation
	,	Contaminated Soil by PCB Poles	Oral Dermal
Future	On-Site Construction Worker	Construction Site Soils	Oral Dermal Inhalation
(a) TPH, tot	al petroleum hydrocart	oons.	

Table 2-3. Inhalation F Used in the C	2-3. Inhalation Exposure Time, Frequency, and Duration Terms Used in the Cameron Station Exposure Assessment	y, and Duration Terms Assessment	
Receptor	Exposure Time (hours/day)	Exposure Frequency (days/year)	Exposure Duration (years)
Recreational Visitor to Cameron Lake	2	5	6 (child) 30 (adult)
Recreational Visitor to Picnic Ground	4	10	6 (child) 30 (adult)
Recreational Visitor to Ball Field	2	10	6 (child) 30 (adult)
Adult Exerciser at Ball Field	3	120	30
Adult Jogger on Perimeter Road	0.167	120	30
Gas Station Worker	8	250	10
Building 30 Maintenance Worker	1	40	10
Future Resident	20	350	6 (child) 30 (adult)
Future Adult Recreational User of Cameron Lake	2	5	30
Future Adult Recreational User of Picnic Grounds	4	10	30
Future Construction Worker	8	250	1

nency and Duration Terms	Exposure Frequency Duration (days/year) (years)	9 9	10 6	20 %	40 10	250 1	350 6 (child) 30 (adult)	Soil 10 6 (child) 30 (adult)	urface 350 6
Table 2-4. Ingestion and Dermal Contact Exposure Frequency and Duration Terms Used in the Cameron Station Exposure Assessment	Receptor	Child Recreational Visitor Age 1-6	Wader Age 9-15	Child Resident Age 6-12	Current Outdoor Worker	Future Construction Worker	Future Resident Exposure in Yard	Picnicker Exposure to Transformer Pole Soil	Future Child Age 1-6 Visit to Landfill Surface
Table 2-4. Ing	Exposure Route	Ingestion of and Dermal Contact with Surface	water and Sediment in Streams	Ingestion of Fish	Ingestion of and Dermal Contact with Surface	Soil			

Table 2-5. Summary	Summary of Carcinogenic Effects and Slope Factors for Contaminants of Potential Concern at the Cameron Station Site ⁽⁴⁾	of Potential Concern at the	Cameron Station Si	te ^(a)
			Slope Factor	Slope Factor, (mg/kg-day) ¹
Chemical	Target Organ - Route	Weight of Evidence	Oral	Inhalation
Aldrin	Liver-oral	B2	1.7E+01	1.7E+01
alpha-Chlordane	Liver-oral	B2	1.3E+00	1.3E+00
Arsenic	Lung-inhalation; skin-oral; limited evidence of other internal cancers; oral and inhalation routes	А	1.8E+00	1.5E+01 [®]
Benzene	Non-lymphocytic leukemia-inhalation and oral	A	2.9E-02	2.9E-02
Benzo(a)anthracene	(c)	B2	5.8E-01	(p)—
Benzo(a)pyrene	Stomach-oral; respiratory tract-inhalation; skin-dermal	B2	5.8E+00	•
Benzo(b)fluoranthene	(c)	B2	5.8E-01	1
Benzo(k)fluoranthene	(c)	B2	5.8E-01	1
Beryllium	Lung-inhalation. Osteosarcomas-injection (intravenous or intramedullary)	B2	4.3E+00	8.4E+00
Bis(2-ethylhexyl)phthalate	Liver-oral	B2	1.4E-02	•
Cadmium	Lung-inhalation; insufficient evidence of carcinogenicity-oral	B1 (inhalation)	ı	6.3E+00
Chromium (VI)	Lung-inhalation	A (inhalation)	1	4.2E+01
Chrysene	(c)	B2	5.8E-02	•
4,4'-DDD	Lung, liver and thyroid-oral	B2	2.4E-01	1
4,4'-DDE	Liver tumors-oral	B2	3.4E-01	1
4,4'-DDT	Liver tumors-oral	B2	3.4E-01	3.4E-01
Dibenz(a,h)anthracene	(c)	B2	5.8E+00	1

Table 2-5. Sumnary	Table 2-5. Summary of Carcinogenic Effects and Slope Factors for Contaminants of Potential Concern at the Cameron Station Site ⁽⁴⁾	is of Potential Concern at the	e Cameron Station Si	te ^(a)
			Slope Factor	Slope Factor, (mg/kg-day) ⁻¹
Chemical	Target Organ - Route	Weight of Evidence	Oral	Inhalation
Dieldrin	Liver, lung-oral	B2	1.6E+01	1.6E+01
gamma-Chlordane	Liver-oral	B2	1.3E+00	1.3E+00
Heptachlor	Liver-oral	B2	4.5E+00	4.6E+00
Heptachlor epoxide	Liver-oral	B2	9.1E+00	9.1E+00
Indeno(1,2,3-cd)pyrene	(c)	B2	5.8E-01	i i
Lead	Kidney-oral (ATSDR 1991d)	B2	1	1
Nickel	Lung and nasal epithelium-inhalation of nickel refinery dust; Insufficient evidence of carcinogenicity-oral	A (inhalation)	l Fager	8.4E-01
Polychlorinated biphenyls (PCBs) ⁽⁶⁾	Liver-oral; inadequate but suggestive evidence of liver cancer by inhalation and dermal routes	B2	7.7E+00	
2,3,7,8 TCDD	Liver, lung, hard palate, nasal epithelium-oral	B2	1.5E+05 ^(a)	1.5E+05 [©]
Trichloroethene ^(f)	Liver-oral; lung-inhalation	B2	1.1E-02®	6.0E-03©
The state of the s	The second secon			

rable 2-5 - continued

(a) Information from IRIS Database (USEPA 1992) unless otherwise stated. Only chemicals with slope

factors calculated by EPA are included here.

(b) A slope factor of 15 (mg/kg-day)¹ was calculated from the unit risk of 4.29 (ug/m³)¹ as reported on IRIS (USEPA 1992a).

(c) The cancer potency of this PAH is based on its relative toxic equivalence to benzo(a)pyrene. Source: USEPA 1992c.

(d) Not available.

(e) All PCBs evaluated by using SF developed for Aroclor 1260.

(f) The carcinogenicity assessment has been withdrawn by USEPA and is under review.

Table 2-	Table 2-6. Summary of Noncarcinogenic Effects and Critical Toxicity Values for Contaminants of Potential Concern at The Cameron Station Site ⁴⁰	lues for Contamina	nts of Potential Co	ncern at The Came	eron Station S	ite ^(a)	
			Oral CTV			Inhalation CTV	
Chemical	Effect - Route	RíD _s (b)	RfD _c (c)	Confidence Level	RíD _s ^(b)	RM _c ^(c)	Confidence Level
Acenaphthene	Liver effects-oral	6.0E-01	6.0E-02	Low	(g)	-	
Acetone	Increased liver and kidney weights, nephrotoxicity-oral	1.0E-00	1.0E-01	Low	-		-
Aldrin	Liver toxicity-oral	3.0E-05	3.0E-05	Medium	1		-
aipha-Chiordane	Liver necrosis-oral	6.0E-05	6.0E-05	Low	1	1	
Aluminum	Asthma, pulmonary fibrosie-inhalation; neurological disorders-oral and kidney dialysis (ATSDR 1990a)	-	#		-	1	1
Anthracene	No treatment related effects	3.0E+00	3.0E-01	Low	-	-	1
Aroclor-1242, 1248, 1254, 1260	Liver effects, chloracne-all routes (ATSDR 1991f)	1	-	1	104	1	I
Arsenic	Mucous membrane irritation-inhalation; liver and kidney effects-oral; keratosis, hyperpigmentation, neurological disorders-oral and inhalation routes (ATSDR 1991a)	3.0E-04	3.0E-04	Medium		1	ı
Barium	Hypertension-oral	7.0E-02	7.0E-02	Medium	1.0E-03	1.0E-04(e)	-
Benzene	Hematological effects - oral and inhalation	ı	t	ļ	4.	1	I
Benzaldehyde	Kidney toxicity, forestomach lesions-oral		1.0E-01	Low	1	1	1
Benzo(a)anthracene	(t)	(f)	(J)	I	1	1	1
Benzo(a)pyrene	(t)	()(i)	()(i)	1	ı	ı	
Benzo(b) fluoranthene	(1)	()(t)	(j) 	1	ı	1	
Benzo(g,h,i)perylene	(j)	⊕_	(i)	1		l	1
Benzo(k)fluoranthene	(f)	© -	(i)	1	1	1	1
Benzoic acid	Irritation, malaise-oral	4.0E+00	4.0E+00	Medium	1	ı	-

Table 2-6.	6. Summary of Noncarcinogenic Effects and Critical Toxicity Values for Contaminants of Potential Concern at The Cameron Station Site ¹⁰	lues for Contamina	its of Potential Co	ncern at The Came	eron Station Si	ite ^(a)	
			Oral CTV			Inhalation CTV	
Chemical	Effect - Route	RfD _s (b)	RfD _c ^(c)	Confidence Level	RD _s ^(b)	RfD _c ^(c)	Confidence Level
Beryllium	Oral RfD calculated on the basis of a no adverse effects level	5.0E-03	5.0E-03	Low	1	ı	1
bis(2-ethylhexyl)phthalate	Liver toxicity, reproductive and developmental effects-oral (ATSDR 1991c)	2.0E-02	2.0E-02	Medium	1		
Cadmium	Kidney-oral and inhalation danage routes; impaired respiratory function-inhalation; possible immune alterations-oral (ATSDR 1991b)	l 1	1.0E-03(8) 5.0E-04 ^(h)	High High	1 1	1 1	1 1
Carbon disulfide	Neurological, cardiovascular, developmental and kidney effects-inhalation (ATSDR 1990b)	1.0E-01	1.0E-01	Medium	2.9E-03	2.9E-03(e)	1
Chloroethane	Neurological effects - inhalation		-	-		1	
Chromium (VI) ⁽ⁱ⁾	Atrophy of nasal mucosa-inhalation; oral RfD calculated on the basis of a no adverse effects level	2.0E-02	5.0E-03	Low	5.7E-06	5.7E-07 ^(e)	1
Chrysene	(f)	(J)-	(J)		1	-	1
Cobait	Asthma, fibrosis-inhalation. Cardiomyopathy-oral (ATSDR 1990c)	1	1	ı	1	ı	1
4,4'-DDD	Liver damage - oral	1			ı		,
4,4'-DDT	Liver damage-oral	5.0E-04	5.0E-04	Medium	1	1	
4,4'-DDE	Liver damage - oral	-		1	t		
Dibenz(a,h)anthracene	(f)	w -	(J)		1	-	
Dibenzofuran		•	_		ı		1
2,4-Dimethylphenol	Clinical signs of toxicity, changes in hematologic parameters-oral	2.0E-01	2.0E-02	Low	1	1	I
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12:30 September 16, 1993

Table 2-6.	6. Summary of Noncarcinogenic Effects and Critical Toxicity Values for Contaminants of Potential Concern at The Cameron Station Site ⁴⁰	ues for Contamina	its of Potential Co	ncern at The Cam	eron Station Si	ite ^(a)	
			Oral CTV			Inhalation CTV	>
Chemical	Effect - Route	R.D. (b)	RfD _c ⁽⁶⁾	Confidence Level	RfD _s ^(b)	RfD _c ^(c)	Confidence Level
Dieldrin	Liver lesions-oral	5.0E-05	5.0E-05	Medium	-		1
Endosulfan (I, II)	Mild kidney lesions-oral	2.0E-04	5.0E-05	Medium	1	t	1
Endosulfan sulfate	Mild kidney lesions - oral	. 1				I	1
Endrin	Histological lesioning in liver, convulsions-oral	5.0E-04	3.0E-04	Medium	1	1	
Ethylbenzene	Liver and kidney effects-oral; developmental toxicity-inhalation	1.0E+00	1.0E-01	Low	2.9E-01	2.9E-01	Low
Fluoranthene	Liver and kidney effects-oral	4.0E-01	4.0E-02	Low	1	ı	ı
Fluorene	Decreased red blood cells, hemoglobin-oral	4.0E-01	4.0E-02	Low	-	. t	1
Fluoride	Objectionable dental fluorosis, skeletal fluorosis-oral	6.0E-02	6.0E-02	High	1	ı	•
gamma-BHC	Liver and kidney effects-oral	3.0E-03	3.0E-04			1	1
gamma-Chlordane	Liver necrosis-oral	6.0E-05	6.0E-05	Low	1	1	ł ;
Heptachlor	Increased liver weight-oral	5.0E-04	5.0E-04	-	1	*	ı
Heptachlor epoxide	Increased liver weight-oral	ŧ	1.3E-05	Low	_		• !
Indeno(1,2,3-cd)pyrene	(θ)	(j) —	(t)	-	1	-	ı
Lead	Neurological deficiencies, hypertension, inhibition heme synthesis, reproductive effects-oral and inhalation routes (ATSDR 1991d)	0-	 0	l	I	I	!
Mercury	Neurotoxicity-inhalation; kidney effects-oral	3.0E-04	3.0E-04(e)	-	8.6E-05	8.6E-05(e)	1
2-Methylnaphthalene	(A)	(k)	_(t)	1	1	1	·
Methoxychlor	Excessive loss of litters - oral	5.0E-03	5.0E-03	Low	1	ļ	1

Table 2-6 - continued

Table 2⊀	Table 2-6. Summary of Noncarcinogenic Effects and Critical Toxicity Values for Contaminants of Potential Concern at The Cameron Station Site®	lues for Contamina	nts of Potential Co	ncem at The Cam	eron Station S	ite ⁽⁴⁾	
			Oral CTV			Inhalation CTV	1
Chemical	Effect - Route	RfD _s (b)	RfD _c (c)	Confidence Level	Rm _s (0)	$R\mathfrak{D}_{c}^{(G)}$	Confidence Level
2-Methylphenol	Decreased body weight and neurotoxicity-oral	5.0E-01	5.0E-02	Medium	1	1	
4-Methyl-2-pentanone	Liver and kidney effects-oral and inhalation	5.0E-01	5.0E-02 ^(e)	•	2.0E-01	2.0E-02 ^(e)	
Molybdenum	Biochemical changes - oral	4.0E-03	4.0E-03(e)	_	_	ı	1
Naphthalene	Hemolytic anemia-oral and inhalation; kidney, reproductive and other effects-oral	4.0E-02	4.0E-03 ^(e)		1	1	,
Nickel (soluble salts)	Hematological, developmental effects-oral; respiratory, immune and reproductive effects-inhalation (ATSDR 1991e)	2.0E-02	2.0E-02	Medium			
Nitrate	Methemoglobinemia-oral	-	1.6E+0	High	1.1		
Nitrite	Methemoglobinemia-oral	1.0E-1	1.0E-1	High	1	-	
Phenanthrene	(f)	(J)-	(J)	-	- 1		
Phenol	Developmental and kidney damage, fetotoxicity-oral	6.0E-01	6.0E-01	Low	•]
Pyrene	Kidney damage-oral	3.0E-01	3.0E-02	Low	-	_	
Silver	Skin discoloration (Argyria)-oral	5.0E-03	5.0E-03	Low		1	
Silvex	Changes in liver-oral	1	8.0E-03	Medium	ŧ	1	1
Sulfate	Diarrhea at high concentrations-oral		*	1	1	-1)
2,3,7,8 TCDD	Chloracne, porphyria, liver damage, neurological effects - oral and inhalation		-	ł	ı	ı	ı
Thallium	Hair loss (Alopecia) and increased liver enzymes-oral	7.0E-04	7.0E-05(e)	1	1	1	
Toluene	Changes in liver and kidney weights-oral; central nervous system effects-inhalation	2.0E+00	2.0E-01	Medium	5.7E-01	5.7E-01 ^(e)	ı

Fable 2-6 - continued

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12:30 September 16, 1993

Table 2-	Table 2-6. Summary of Noncarcinogenic Effects and Critical Toxicity Values for Contaminants of Potential Concern at The Cameron Station Site ^{to}	lues for Contamina	nts of Potential Co	ncern at The Cam	eron Station Si	ie ^(a)	
			Oral CTV			Inhalation CTV	,
Chemical	Effect - Route	RfD _s (b)	RM _c (c)	Confidence Level	RíD _s ^(b)	RfD _c ^(c)	Confidence Level
Trichloroethene	Liver, kidney effects-oral and inhalation routes; central nervous system depression-inhalation (ATSDR 1991g)	-	-	-		·	1
Trichlorofluoromethane	Elevated blood urea nitrogen, lung lesions - inhalation; increased mortality - oral	7.0E-01	3.0E-01	Medium	2.0E-00	2.0E-01(e)	1
Vanadium	Renal and gastrointestinal effects - oral; respiratory irritation-inhalation	7.0E-03	7.0E-03 ^(e)	ŧ	1	1	1
Xylenes (total)	Central nervous system toxicity-oral and inhalation; developmental effects-oral	4.0E+00	2.0E+00	Medium	8.6E-02	8.6E-02(e)	ı
m-Xylenes	Hepatomegaly-inhalation; hepatomegaly, hyperactivity, decreased body weight, increased mortality at higher doseoral	4.0E+00	2.0E+00	Medium	1:0E+00	2.0E-01 ^(e)	ı
o-Xylenes	Fetotoxicity-inhalation; hepatomegaly, hyperactivity, decreased body weight, increase mortality of higher doseoral	4.0E+00	2.0E+00	Medium	1.0E+00	2.0E-01 ^(e)	1
p-Xylenes	Central nervous system effects, nose and throat irritation - inhalation		,4	-	8.6E-02	8.6E-02(e)	ı

Table 2-6 - continued

(a) Units of the RfD are mg/kg-day.
(b) All information from HEAST (USEPA 1991a) unless otherwise noted.
(c) All information from RIS Database (USEPA 1992) unless otherwise noted.
(d) Not available.
(e) Information from HEAST (USEPA 1991a).
(f) Noncarcinogenic effects of this PAH evaluated using the RfD for pyrene. See text for explanation.
(g) Applicable to cadmium in food or soil.
(h) Applicable to cadmium in water.
(i) All detected chromium assumed to be hexavalent.
(j) Lead will be evaluated based on acceptable blood lead levels using the UBK model.

(k) Noncarcinogenic effects of this compound evaluated using the RfD for naphthalene.

Table 2-7. Chemicals Contributing to Excess Cancer Risk at a Pathway Level of 1E-6 or Greater

Population	Location	Medium	Route	Contributing Chemicals	Chemical-Specific Cancer Risk
Current Child Visitor	Cameron Lake	Fish	Oral	Gamma chlordane PCB 1260 Dioxin	1E-06 3E-05 1E-05
				Pathway total:	4E-05
				Population total:	4E-05
Current Maintenance Worker	Fenceline Area	Soil	Dermal	Dioxin	2E-06
				Pathway total:	2E-06
				Population total:	2E-06
Future Resident Child	Cameron Lake	Fish	Oral	Gamma chlordane PCB 1260 Dioxin	1E-06 3E-05 1E-05
				Pathway total:	4E-05
	Residence	Soil	Oral	Beryllium Dieldrin Heptachlor PCB 1260 Dioxin	3E-06 5E-06 1E-06 3E-06 8E-06
				Pathway total:	2E-05
		Soil	Dermal	PCB 1260 Dioxin	1E-06 5E-06
				Pathway total:	6E-06
	Landfill	Soil	Oral	Beryllium Benzo(a)pyrene	6E-07 5E-07
				Pathway total:	1E-06
				Population total:	7E-05

Population	Location	Medium	Route	Contributing Chemicals	Chemical-Specific Cancer Risk
Future Resident Adult	Residence	Soil	Oral	Beryllium Dieldrin PCB 1260 Dioxin	2E-06 3E-06 2E-06 5E-06
			1.5	Pathway total:	1E-05
		Soil	Dermal	PCB 1260 Dioxin	4E-06 2E-05
				Pathway total:	2E-05
	,			Population total:	3E-05

TABLE 2-8 SUMMARY OF DETAILED ANALYSIS OU-1 PCB TRANSFORMER SERVICE, STORAGE AND SPILL AREAS CAMERON STATION ALEXANDRIA, VIRGINIA

ALTERNATIVE	#1 NO ACTION	#2 EXCAVATION AND OFF-SITE DISPOSAL IN RCRA LANDFILL	#3 EXCAVATION AND OFF-SITE THERMAL OXIDATION
1.0 Short Term Effectiveness			
Protection of workers during remedial actions	Not applicable.	Potential exposure during excavation can be mitigated by personal protection and dust control.	Potential exposure during excavation can be mitigated by personal protection and dust control.
Environmental impacts	Negligible	Proposed technology will minimize risk from direct contact of waste materials.	Available methods will minimize potential risk from emissions in an off-site thermal treatment facility.
Time until action is completed (after ROD signing)	Existing risk remains	< 1 month	< 1 month



September 16, 1993

TABLE 2-8 (continued) SUMMARY OF DETAILED ANALYSIS OU-1 PCB TRANSFORMER SERVICE, STORAGE AND SPILL AREAS CAMERON STATION ALEXANDRIA, VIRGINIA

ALTERNATIVE	#1 NO ACTION	#2 EXCAVATION AND OFF-SITE DISPOSAL IN RCRA LANDFILL	#3 EXCAVATION AND OFF-SITE THERMAL OXIDATION
2.0 Long-Term Effectiveness and Performance			
Magnitude of residual risks	The residual risks to human health and the environment will be the same as the current risk.	Site specific clean-up goals will be achieved.	Site specific clean-up goals will be achieved.
Adequacy of control	Not applicable.	Off-site RCRA landfilling demonstrated to be effective.	Off-site thermal treatment demonstrated to be effective.
Reliability of controls	Not applicable.	Methods employed are generally reliable with a low probability of failure.	Methods employed are generally reliable with a low probability of failure.

September 1 1999

TABLE 2-8 (continued) SUMMARY OF DETAILED ANALYSIS OU-1 PCB TRANSFORMER SERVICE, STORAGE AND SPILL AREAS CAMERON STATION ALEXANDRIA, VIRGINIA

ALTERNATIVE	#1 NO ACTION	#2 EXCAVATION AND OFF-SITE DISPOSAL IN RCRA LANDFILL	#3 EXCAVATION AND OFF-SITE THERMAL OXIDATION
3.0 Reduction of Toxicity. Mobility or Volume (TMV)	No reduction in TMV	Off-site RCRA landfill will reduce mobility of PCBs.	Incineration will destroy the toxicity and volume of PCBs and pesticides.

September 16, 1993

TABLE 2-8 (continued) SUMMARY OF DETAILED ANALYSIS OU-1 PCB TRANSFORMER SERVICE, STORAGE AND SPILL AREAS CAMERON STATION ALEXANDRIA, VIRGINIA

ALTERNATIVE	#1 NO ACTION	#2 EXCAVATION AND OFF-SITE DISPOSAL IN RCRA LANDFILL	#3 EXCAVATION AND OFF-SITE THERMAL OXIDATION
4.0 Implementability			
Technical feasibility	Not applicable.	Off-site RCRA landfill is relatively easy to implement.	Incineration to destroy organics is a proven technology.
	·		
Administrative feasibility	Not applicable.	DOT manifesting necessary. No permits required for on-site work. Coordination between EPA and state necessary. Coordination will be necessary with off-site treatment facility.	DOT manifesting necessary. No permits required for on-site work. Coordination between EPA and state necessary. Coordination will be necessary with off-site treatment facility.
Availability of services and materials	Not applicable.	Several off-site RCRA landfills available. Other services and equipment locally available.	Several off-site incinerators are available. Other services and equipment are locally available.
5.0 Cost (Present Worth 30-yr @ 5%)	\$0	\$16,300	\$38,100

TABLE 2-8 (continued) SUMMARY OF DETAILED ANALYSIS OU-1 PCB TRANSFORMER SERVICE, STORAGE AND SPILL AREAS CAMERON STATION ALEXANDRIA, VIRGINIA

ALTERNATIVE	#1 NO ACTION	#2 EXCAVATION AND OFF-SITE DISPOSAL IN RCRA LANDFILL	#3 EXCAVATION AND OFF-SITE THERMAL OXIDATION
6.0 Compliance with ARARs	Will not meet ARARs	Will meet ARARs	Will meet ARARs
7.0 Overall Protection of Human Health and Environment	Not protective	Will achieve clean-up goals and thus be protective.	Will achieve clean-up goals and thus be protective.
8.0 State Acceptance		Accepted	
9.0 Community Acceptance		No public comments	



TABLE 2-9 SUMMARY OF DETAILED ANALYSIS OU-3 LANDFILL CAMERON STATION ALEXANDRIA, VIRGINIA

ALTERNATIVE	#1 NO ACTION	#2 SOIL CAPPING AND MONITORING THE LANDFILL
1.0 Short Term Effectiveness		
Protection of workers during remedial actions	Not applicable	Potential exposure during capping construction can be mitigated by personal protection and dust control.
Environmental impacts	Negligible	Increase in dust during construction of cap. Adequate controls can be implemented.
Time until action is completed (after ROD signing)	Existing risk remains	< 1 year

TABLE 2-9 (continued) SUMMARY OF DETAILED ANALYSIS OU-3 LANDFILL CAMERON STATION ALEXANDRIA, VIRGINIA

ALTERNATIVE	#1 NO ACTION	#2 SOIL CAPPING AND MONITORING THE LANDFILL
2.0 Long-Term Effectiveness and Performance		
Magnitude of residual risks	The residual risks to human health and the environment will be the same as the current risks.	Because landfilled materials do not pose a threat to human health or the environment, there will be minimal long-term residual risk associated with this alternative. A proper designed, constructed and maintained soil cap can provide long-term reliability.
Adequacy of control	Not applicable.	Soil capping is a well established technology. The soil cap will be effective in reducing direct exposure to landfilled wastes and leaching of contaminants.
Reliability of control	Not applicable.	Likelihood of failure is small as long as regular O&M is performed.

TABLE 2-9 (continued) SUMMARY OF DETAILED ANALYSIS OU-3 LANDFILL CAMERON STATION ALEXANDRIA, VIRGINIA

ALTERNATIVE	#1 NO ACTION	#2 SOIL CAPPING AND MONITORING THE LANDFILL
3.0 Reduction of Toxicity, Mobility or Volume, (TMV)	No reduction in TMV	Will not result in a reduction in toxicity or volume. The cap would indirectly reduce contaminants mobility, by reducing the potential for leaching.
4.0 <u>Implementability</u> Technical feasibility	Not applicable.	Capping is relatively easy to implement.
Administrative feasibility	Not applicable.	Generally administratively feasible.
Availability of services and materials	Not applicable.	Services and materials are readily available. Materials to contstruct cap are assumed to be available locally.
5.0 Cost (Present Worth 10-yr @ 5%)	\$0	\$96,400

TABLE 2-9 (continued) SUMMARY OF DETAILED ANALYSIS OU-3 LANDFILL CAMERON STATION ALEXANDRIA, VIRGINIA

ALTERNATIVE	#1 NO ACTION	#2 SOIL CAPPING AND MONITORING THE LANDFILL
6.0 Compliance with ARARS	Will not meet ARARs.	Will meet ARARs.
7.0 Overall Protection of Human Health and Environment	Not protective, however risk to human health from direct contact with landfilled materials is currently low.	Risk to human health from direct contact with landfilled materials will be significantly reduced. Cap would also reduce infiltration of water through the fill area thus reducing leaching into groundwater.
8.0 State Acceptance		Accepted
9.0 Community Acceptance	Ne	No public comments

ALTERNATIVE	#1 NO ACTION	#2 EXCAVATION AND OFF-SITE RCRA LANDFILL	#3 EXCAVATION AND OFF-SITE THERMAL OXIDATION
1.0 Short Term Effectiveness			
Protection of workers during remedial actions	Not applicable	Potential exposure during excavation can be mitigated by personal protection and dust control.	Potential exposure during excavation can be mitigated by personal protection and dust control.
Environmental impacts	Negligible	Proposed technology will minimize risk from direct contact of waste materials.	Available methods will minimize potential risk from emissions in an off-site thermal treatment facility.
Time until action is completed (after ROD signing)	Existing risk remains	< 1 month	< 1 month

ALTERNATIVE	#1 NO ACTION	#2 EXCAVATION AND OFF-SITE RCRA LANDFILL	#3 EXCAVATION AND OFF-SITE THERMAL OXIDATION
2.0 Long-Term Effectiveness and Performance			
Magnitude of residual risks	The residual risks to human health and the environment will be the same as the current risk.	Site specific clean-up goals will be achieved.	Site specific clean-up goals will be achieved.
Adequacy of control	Not applicable.	Off-site RCRA landfilling demonstrated to be effective.	Off-site thermal treatment demonstrated to be effective.
Reliability of controls	Not applicable	Methods employed are generally reliable with a low probability of failure.	Methods employed are generally reliable with a low probability of failure.



ALTERNATIVE	#1 NO ACTION	#2 EXCAVATION AND OFF-SITE RCRA LANDFILL	#3 EXCAVATION AND OFF-SITE THERMAL OXIDATION
3.0 Reduction of Toxicity. Mobility or Volume, (TMV)	No reduction in TMV	Off-site RCRA landfill will reduce mobility of PCBs.	Incineration will destroy the toxicity and volume of PCBs and pesticides.

ALTERNATIVE	#1 NO ACTION	#2 EXCAVATION AND OFF-SITE RCRA LANDFILL	#3 EXCAVATION AND OFF-SITE THERMAL OXIDATION
4.0 Implementability Technical feasibility	Not applicable	Off-site RCRA landfill is	Incineration to destroy organice
•		relatively easy to implement.	is a proven technology.
Administrative feasibility	Not applicable	DOT manifesting necessary. No permits required for on-site work. Coordination between EPA and	DOT manifesting necessary. No permits required for on-site work. Coordination between
		state necessary. Approval will be necessary for off-site land filling.	EFA and state necessary.
Availability of services and materials	Not applicable	Several off-site RCRA landfills available. Other services and equipment locally available.	Several off-site incinerators are available. Other services and equipment are locally available.
5.0 Cost (Present Worth 30-yr @ 5%)	\$0	\$27,000	\$72,000





September 16, 1993

ALTERNATIVE	#1 NO ACTION	#2 EXCAVATION AND OFF-SITE RCRA LANDFILL	#3 EXCAVATION AND OFF-SITE THERMAL OXIDATION
6.0 Compliance with ARARs	Will not meet ARARs	Will meet ARARs	Will meet ARARs
7.0 Overall Protection of Human Health and Environment	Not protective	Will achieve clean-up goals and thus be protective.	Will achieve clean-up goals and thus be protective.
8.0 State Acceptance		Accepted	
9.0 Community Acceptance		No public comments	

TABLE 2-11 SUMMARY OF DETAILED ANALYSIS OU-5 SANITARY AND STORM SEWER SYSTEMS CAMERON STATION ALEXANDRIA, VIRGINIA

GROUNDWATER COLLECTION FOLLOWED BY AIR STRIPPING SYSTEM AND DISCHARGE TO SURFACE WATER	Low risks assuming adequate personal protection for workers is provided. Potential health risks associated with contaminant air emissions resulting from the water treatment process are anticipated to be low. However, if the risk becomes high, additional air emissions controls can be implemented.
,	low. However, if the risk becomes high, additional air emissions controls can be implemented.
Effectiveness Protection of workers during Not appremedial actions Environmental impacts Short-te ground	present

TABLE 2-11 (continued) SUMMARY OF DETAILED ANALYSIS OU-5 SANITARY AND STORM SEWER SYSTEMS CAMERON STATION ALEXANDRIA, VIRGINIA

ALTERNATIVE	#1 NO ACTION	#2 GROUNDWATER COLLECTION FOLLOWED BY AIR STRIPPING SYSTEM AND DISCHARGE TO SURFACE WATER	#3 GROUNDWATER COLLECTION FOLLOWED BY LIQUID PHASE CARBON ABSORPTION AND DISCHARGE TO SURFACE WATER
2.0 Long-Term Effectiveness and Performance			
Magnitude of residual risks	The long-term risk to human health and the environment would be the same as the current risk. The groundwater contamination is projected to migrate further downgradient.	No long-term residual risk will be associated with the treated groundwater by the air stripping system.	No long-term residual risk would remain from organic conaminants adsorbed to GAC because spent carbon will be thermally regenerated offsite.
Adequacy of control	Not applicable.	Methods employed are generally conventional and effective.	Methods employed are generally conventional and effective.
Reliability of controls	Not applicable.	Groundwater extraction and air stripping treatment are adequate and reliable methods of remediating volatile organic contaminated groundwater.	Groundwater extraction and carbon adsorption treatment are adequate and reliable methods of remediating volatile organic contaminated groundwater.
3.0 Reduction of Toxicity, Mobility or Volume, (TMV)	No reduction in TMV	The air stripping system will effectively remove contaminants from groundwater but will not reduce the toxicity, mobility or volume of contaminants.	Volume and mobility reduction would be achieved by concentrating organic contaminants on the carbon surface. Toxicity reduction would also be achieved if the carbon was thermally regenerated thereby destroying the contaminants.

September 16, 1993

TABLE 2-11 (continued) SUMMARY OF DETAILED ANALYSIS OU-5 SANITARY AND STORM SEWER SYSTEMS CAMERON STATION ALEXANDRIA, VIRGINIA

ALTERNATIVE	#1 NO ACTION	#2 GROUNDWATER COLLECTION FOLLOWED BY AIR STRIPPING SYSTEM AND DISCHARGE TO SURFACE WATER	#3 GROUNDWATER COLLECTION FOLLOWED BY LIQUID PHASE CARBON ABSORPTION AND DISCHARGE TO SURFACE WATER
4.0 Implementability Technical feasibility	Not applicable	Technically feasible. Alternative employs conventional, reliable technologies.	Technically feasible. Alternative employs conventional, reliable technologies.
Administrative feasibility	Not applicable	Administrative efforts in obtaining VPDES permits will be required for the discharge to surface water.	Administrative efforts in obtaining VPDES permits will be required for the discharge to surface water.
Availability of services and materials	Services and materials for sampling and analysis are readily available	Services and materials are readily available.	Services and materials are readily available.
5.0 Cost (Present Worth 30- yr @ 5%)	\$118,400	\$1,034,200	\$1,097,300
6.0 Compliance with ARARs	Will not meet ARARs	Will meet ARARs	Will meet ARARs

TABLE 2-11 (continued) SUMMARY OF DETAILED ANALYSIS OU-5 SANITARY AND STORM SEWER SYSTEMS CAMERON STATION ALEXANDRIA, VIRGINIA

ALTERNATIVE	#1 NO ACTION	#2 GROUNDWATER COLLECTION FOLLOWED BY AIR STRIPPING SYSTEM AND DISCHARGE TO SURFACE WATER	#3 GROUNDWATER COLLECTION FOLLOWED BY LIQUID PHASE CARBON ABSORPTION AND DISCHARGE TO SURFACE WATER
7.0 <u>Overall Protection of</u> <u>Human Health and</u> <u>Environment</u>	Risks to human health from exposure to contaminated groundwater is currently low. However, potential offsite migration of contaminants in the future would result in increased risk to humans.	Risk to human health and the environment would be reduced since groundwater extraction and treatment would be provided.	Risk to human health and the environment would be reduced since groundwater extraction and treatment would be provided.
8.0 State Acceptance		Accepted	
9.0 Community Acceptance	No public comments	Alternative #2 was modified to include carbon treatment of the air discharge in response to comments from the Alexandria Health Department.	trnent of the air discharge in response to

TABLE 2-12 SUMMARY OF DETAILED ANALYSIS OU-6 ACID PITS CAMERON STATION, ALEXANDRIA, VIRGINIA

ALTERNATIVE	#1 NO ACTION	#4 EXCAVATION AND OFF-SITE THERMAL OXIDATION AND SOLIDIFICATION
1.0 Short-Term Effectiveness		
Protection of workers during remedial actions	Not applicable	Potential exposure during excavation can be mitigated by personal protection and dust control.
Environmental impacts	Negligible	Available methods will minimize potential risk from emissions in an off-site thermal treatment facility.
Time until action is completed (after ROD signing)	Existing risk remains	< 1 month
2.0 Long-Term Effectiveness and Performance		
Magnitude of residual risks	Existing risk from potential groundwater ingestion and incidental ingestion of contaminated soil will continue.	Site specific clean-up goals will be achieved.
Adequacy of control	Not applicable	Off-site thermal treatment and solidification demonstrated to be effective.
Reliability of controls	Not applicable	Methods employed are generally reliable with a low probability of failure.



TABLE 2-12 (continued) SUMMARY OF DETAILED ANALYSIS OU-6 ACID PITS CAMERON STATION, ALEXANDRIA, VIRGINIA

ALTERNATIVE	#1 NO ACTION	#4 EXCAVATION AND OFF-SITE THERMAL OXIDATION AND SOLIDIFICATION
3.0 Reduction of Toxicity. Mobility or Volume. (TMV)	No reduction in TMV	Incineration will destroy the toxicity and volume of organics, and solidification process will reduce the mobility of metals.
4.0 Implementability		
Technical feasibility	Not applicable	Incineration to destroy organics and solidification to immobilize metals are proven technologies.
Administrative feasibility	Not applicable	DOT manifesting necessary. No permits required for on-site work. Coordination between EPA and state necessary.
Availability of services and materials	Not applicable	Several off-site incinerators are available. Other services and equipment are locally available.
5.0 <u>Cost (Present Worth 30. Yr</u> <u>@ 5%)</u>	\$0	\$44,600
6.0 Compliance with ARARs	Will not meet ARARs	Will meet ARARs

	ALTERNATIVE	#1 NO ACTION	#4 EXCAVATION AND OFF-SITE THERMAL OXIDATION AND SOLIDIFICATION
7.0	Overall Protection of Human Health and Environment	Not protective	Will achieve clean-up goals and thus be protective
8.0	State Acceptance		Accepted
9.0	Community Acceptance	οN	No public comments

TABLE 2-13 SUMMARY OF DETAILED ANALYSIS OU-8 PX SERVICE STATION AND BUILDING 2 UNDERGROUND STORAGE TANKS CAMERON STATION, ALEXANDRIA, VIRGINIA

ALTERNATIVE	#1 NO ACTION	#2 GROUNDWATER COLLECTION FOLLOWED BY AIR STRIPPING SYSTEM AND DISCHARGE TO SURFACE WATER	#3 GROUNDWATER COLLECTION FOLLOWED BY LIQUID PHASE CARBON ABSORPTION AND DISCHARGE TO SURFACE WATER	#4 GROUNDWATER COLLECTION FOLLOWED BY AIR STRIPPING AND IN-SITU BIOREMEDIATION
1.0 Short Term Effectiveness				
Protection of workers during remedial actions	Not applicable.	Low risks assuming adequate personal protection for workers is provided.	Low risks assuming adequate personal protection for workers is provided.	Low risks assuming adequate personal protection for workers is provided.
Environmental impacts	Short-term risks due to groundwater are presently low.	Potential health risks associated with contaminant air emissions resulting from the water treatment process are anticipated to be low. However, if the risk becomes high, additional air emissions controls can be implemented.	Minimal risks to community during implementation.	Minimal risks to community during implementation. Potential health risks associated with contaminant air emissions resulting from the water treatment process are anticipated to be low.
Time until action is completed (after ROD signing)	The remedial action objectives for groundwater will not be achieved.	Approximately 15 to 17 years.	Approximately 15 to 17 years.	Approximately 10 years.

TABLE 2-13 (continued) SUMMARY OF DETAILED ANALYSIS OU-8 PX SERVICE STATION AND BUILDING 2 UNDERGROUND STORAGE TANKS CAMERON STATION, ALEXANDRIA, VIRGINIA

GROUNDWATER COLLECTION FOLLOWED BY LIQUID PHASE CARBON ABSORPTION AND DISCHARGE TO SURFACE WATER		Spent carbon will be In-situ microbial reactions will regenerated off-site, therefore convert organic contaminants into simpler and less toxic compounds, thus eliminating the long-term risks associated with contaminated groundwater.	Methods employed are Generally conventional and conditions, methods employed are generally effective.	Groundwater extraction and carbon adsorption treatment are adequate and reliable methods of remediating relatively reliable with a low probability of failure.
#2 GROUNDWATER COLLECTION FOLLOWED BY AIR STRIPPING SYSTEM AND DISCHARGE TO SURFACE WATER		Long-term risk associated with the treated groundwater will be reduced by the air stripping system.	Methods employed are generally conventional and effective.	Groundwater extraction and air stripping treatment are adequate and reliable methods of remediating volatile organic contaminated groundwater.
#1 NO ACTION		The long-term risks to human health and the environment will be the same as the current risk. The contaminated groundwater is projected to migrate downgradient.	Not applicable.	Not applicable.
ALTERNATIVE	2.0 Long-Term Effectiveness and Performance	Magnitude of residual risks	Adequacy of control	Reliability of controls

TABLE 2-13 (continued) SUMMARY OF DETAILED ANALYSIS OU-8 PX SERVICE STATION AND BUILDING 2 UNDERGROUND STORAGE TANKS CAMERON STATION, ALEXANDRIA, VIRGINIA

ALTERNATIVE	#1 NO ACTION	#2 GROUNDWATER COLLECTION FOLLOWED BY AIR STRIPPING SYSTEM AND DISCHARGE TO SURFACE WATER	#3 GROUNDWATER COLLECTION FOLLOWED BY LIQUID PHASE CARBON ABSORPTION AND DISCHARGE TO SURFACE WATER	#4 GROUNDWATER COLLECTION FOLLOWED BY AIR STRIPPING AND IN-SITU BIOREMEDIATION
3.0 Reduction of Toxicity, Mobility or Volume, (TMV)	No reduction in TMV	The air stripping will effectively remove contaminants in groundwater but will not reduce the toxicity, mobility or volume of contaminants. Groundwater treatment will be irreversible.	Volume and mobility reduction will be achieved by concentrating organic contaminants on the carbon surface. Toxicity reduction will also be achieved if the carbon is thermally regenerated, thereby destroying the contaminants.	This alternative will effectively reduce the toxicity and volume of contaminants in groundwater through in-situ biological reactions.
4.0 Implementability				
Technical feasibility	Not applicable.	Technically feasible. Alternative employs conventional, reliable technologies.	Technically feasible. Alternative employs conventional, reliable techifologies.	Technically feasible. Alternative employs conventional, reliable technologies.
Administrative feasibility	Not applicable.	Administrative efforts in obtaining VPDES permits will be required for the discharge to surface water.	Administrative efforts in obtaining VPDES permits will be required for the discharge to surface water.	Administrative efforts in obtaining approval for the injection-recapture system required by this alternative.
Availability of services and materials	Services and materials for sampling and analysis are readily available.	Services and materials are readily available.	Services and materials are readily available.	Services and materials are readily available.

TABLE 2-13 (continued) SUMMARY OF DETAILED ANALYSIS OU-8 PX SERVICE STATION AND BUILDING 2 UNDERGROUND STORAGE TANKS CAMERON STATION, ALEXANDRIA, VIRGINIA

ALTERNATIVE	#1 NO ACTION	#2 GROUNDWATER COLLECTION FOLLOWED BY AIR STRIPPING SYSTEM AND DISCHARGE TO SURFACE WATER	#3 GROUNDWATER COLLECTION FOLLOWED BY LIQUID PHASE CARBON ABSORPTION AND DISCHARGE TO SURFACE WATER	#4 GROUNDWATER COLLECTION FOLLOWED BY AIR STRIPPING AND IN-SITU BIOREMEDIATION
5.0 Cost (Present Worth @ 5%)	\$118,400 (for 30 years)	\$750,200 (for 17 years)	\$2,115,800 (for 17 years)	\$935,400 (for 10 years)
6.0 Compliance with ARARs	Will not meet ARARs	Will meet ARARs	Will meet ARARs	Will meet ARARs
7.0 <u>Overall</u> <u>Protection of</u> <u>Human Health</u> <u>and</u> <u>Environment</u>	This alternative will not protect human health or the environment from potential risks posed by the contaminated groundwater.	Risk to human health and the environment will be reduced since groundwater extraction and treatment will be provided.	Risk to human health and the environment will be reduced since groundwater extraction and treatment will be provided.	This alternative may provide more protection of human health and the environment because the contaminants will be degraded and the time required to achieve aquifer restoration will be faster than other alternatives.
8.0 <u>State</u> Acceptance	Alternative #4 is generally ac Division per VR 680-13-02, will be implemented by the #4	cepted by the state. However, the Sections 6.3, 6.4, 6.5 & 6.6. The Army under a CAP permit after a	ly accepted by the state. However, this OU is being addressed under the supervision of DEQ's Water 02, Sections 6.3, 6.4, 6.5 & 6.6. These regulations require a Corrective Action Plan (CAP) which the Army under a CAP permit after approval of the CAP by the State.	he supervision of DEQ's Water ve Action Plan (CAP) which
9.0 Community Acceptance		No pub	No public comments	

September 16, 1993

TABLE 2-14: CHEMICAL SPECIFIC ARARS

Oper R	Operable Unit (OU) and Preferred Remedial Alternative (PRA)		Contami-		Applicable	Applicable or Relevant and Appropriate Requirements	nents	
OU No.	Description	Media	nant of Concern	Federal	Federal Standards	Standards	Risk- based Cleanup Goals	Comments
-	PCB TRANSFORMER PRA: Excavation and Off-Site Disposal in RCRA Landfill	Soil	PCBs	EPA ⁽⁴⁾ RESID	EPA®		RESIDE- NTIAL	Due to the inherent uncertainity
				1 mg/kg	10 mg/kg		0.053 mg/kg	in the risk assessment
				NDON	INDUSTRIAL)	process, 1
				10-25 mg/kg	25 mg/kg			adopted as
		Impermeable Solid Surface			10 µg/100 cm²	i de		me cleanup goal.
				(1) Land Restr (40 C and (2) Natio	Land Disposal Restrictions (LDR) (40 CFR Part 268); and National Primary and Secondary Ambient Air Quality Standards (40 CFR Part 50)			
ю	Landfill PRA: Soil Capping and Monitoring the Landfill	Soil and Groundwater	Metals (Silver and Cadmium)	Water RCRA MCLs for Cd: 10 µg/L SDWA MCLs for Cd: 5 µg/L	or Cd: 10 µg/L or Cd: 5 µg/L	Groundwater standard for Cd: 0.4 µg/L Primary MCLs for Cd: 10 µg/L		Remediation is not required because of
								compliance with ARARs or no health risks.

TABLE 2-14: CHEMICAL SPECIFIC ARARs (Continued)

Oper R	Operable Unit (OU) and Preferred Remedial Alternative (PRA)		Contami-		Applicable	Applicable or Relevant and Appropriate Requirements	ments	
OU No.	Description	Media	nant of Concern	Federal	Federal Standards	State Standards	Risk- based Cleanup Goals	Comments
4	Pesticides Use and Storage Areas PRA: Excavation and Off-Site Disposal in RCRA Landfill	Soil	Dioxin (Pesticides)	(1) As positions of the contact of t	As per LDR (40 CFR Part 268), cleanup goal for dioxin containing wastes is less than 1 µg/l (TCLP); As per EPA's ROD, (3 cleanup goal is 1 µg/kg; and National Primary and Secondary Ambient Air Quality Standards (40 CFR Part 50)		0.0023 µg/kg	Based on EPAs guidance at Superfund site, the cleanup goal of 1 µg/kg is considered as the ARAR.

September 16, 1993

TABLE 2-14: CHEMICAL SPECIFIC ARARs (Continued)

Oper R	Operable Unit (OU) and Preferred Remedial Alternative (PRA)		Contami-		Applicable	e or Rek	Applicable or Relevant and Appropriate Requirements	ents		<u> </u>
OO No.	Description	Media	nant of Concern		Federal Standards		State Standards	Risk- based Cleanup Goals	Comments	T
	Sanitary and Storm Sewer System	Groundwater	Chlorinated	£	LDR (40 CFR Part 268):	ε	Virginia State Water		Remediation	ī
	PRA: Groundwater Collection			8	Safe Drinking Water		Chapter 3.1);		comply with	_
	Followed by Air Stripping and				Act (40 CFR Parts	છ	Virginia Miscelaneous		ARARs.	
	Uscharge to Surface Water (with Carbon Treatment of Air				141 and 143): MCLs in 19/L for TCE:		Laws Relating to Water		Cleanup	
	Discharge)				1,1,-DCE; benzene;		Chapter 20);		ug/L) for	
					and toluene are 5, 7,	ତ	Virginia Groundwater Act		TCE, 1,1,-	
					5, and 1000		(Title 62-1, Chapter 3.6);		DCE,	_
					respectively	€	Virginia Pollution		benzene and	
							Discharge Elimination		Toluene are	
						,	System (VR680-14-01);		5,7,5, and	
						ଚ	Virginia Pollutant		1000	
							Abatement Permit Program		respectively	-
							(VR 680-14-01);			-
						<u>e</u>	Groundwater Standards			-
						6	Emission Standards for			
						,	Toxic Pollutants (Rules 4-3			
							and 5-3)			
						@	Primary MCL (µg/L) for			
							TCE and 1,1,-DCE and			
							benzene are 5, 7, and 5			=
							respectively.			

TABLE 2-14: CHEMICAL SPECIFIC ARARs (Continued)

# Z	Operable Unit (OU) and Preferred Remedial Alternative (PRA)		Contami-		Applicable	Applicable or Relevant and Appropriate Requirements	ents	
OO No.	Description	Media	nant of Concern	Œ,	Federal Standards	State Standards	Risk- based Cleanup Goals	Comments
	Acid Pits PRA: Excavation and Off-Site Thermal Oxidation and Solidification	Soil	Total petroleum hydrocarbons and lead	£ & £	Land Disposal Restrictions (LDR) (40 CFR Part 268); and National Primary and Secondary Ambient Air Quality Standards (40 CFR Part 50) Allowable lead	Action level for total petroleum hydrocarbons is 100 mg/kg (VR 680-13-02)		Remediation is required to comply with ARARs. Cleanup goal is 100 mg/kg.
					concentrations (in mg/kg) in residential and industrial areas are 500 and 1000 respectively (EPA OSWER Directive 9355.4-02).	y		

Footnote:

- Guidance on Remedial Actions for Superfund Sites with PCB contamination, August 1990 (EPA-540/G-90/007) PCB Information Package, December 1991, US EPA, Region III
 US EPA Record of Decision for Dioxin-contaminated soil, Times Beach, Missouri (Septemeber 1988) **6** 4 8

September 16, 1993

TABLE 2-15: ACTION SPECIFIC ARARS

Open	Operable Unit (OU) and Preferred Remedial Alternative (PRA)		Contami-	Applicable	Applicable or Relevant and Appropriate Requirements	ts
OU No.	Description	Media	nant of Concern	Federal Standards	State Standards	Comments
	PCB TRANSFORMER PR4: Excavation and Off-Site Disposal in RCRA Landfill	Soil Impermeable Solid Surface	PCBs	Criteria for classification of solid waste disposal facilities and practices (40 CFR Part 257)	Virginia Solid Waste Regulations-Special Wastes (VR 672-20-10, Part VII)	State regulation establishes disposal requirements for wastes containing PCBs.
				Standardards for owners and operators of hazardous waste treatment, storage, and disposal facilities (40 CFR Part 264) and Subparts B through E		
				Interim standards for owners and operators of hazardous waste treatment, storage and disposal facilities		
-				Occupational Safety and Health Act (29USC Section 651-678)		
				Toxic Substances Control Act (TSCA)(13 USC Section 2601-2629)		
	·		·	Hazardous Materials Transportation Act (49 USC.		;
ဇ	Landfill	Soil and Groundwater	Metals (Silver and Cadmium)	Solid Waste Disposal Act, Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities (40 CFR Part 264) and Subparts B.C., and D	Virginia Solid Waste Regulations (VR 672-20-10)	

ACTION SPECIFIC ARARs (Continued)

Oper R	Operable Unit (OU) and Preferred Remedial Alternative (PRA)		Contami-	Applicabl	Applicable or Relevant and Appropriate Requirements	ıts
No.	Description	Media	nant of Concern	Federal Standards	State Standards	Comments
	PRA: Soil Capping and Monitoring the Landfill			Interim Standards for Owners and Operators of Hazardous Waste Treatement, Storage and Disposal Facilities (40 CFR Part 265)	Virginia Hazardous Waste Management Regulations (Virginia Department of Waste Management, VR 672-10-01)	
4	Pesticides Use and Storage Areas PRA: Excavation and Off-Site	Soil	Dioxin (Pesticides)	Hazardous Materials Transportation Act (49 USC Section 1801-1813)	Virginia Hazardous Waste Management Regulations (Virginia Department of Waste Management, VR 672-10-01)	
	Disposat in RCKA Langliu			Occupational Safety and Health Act (29USC Section 651-678)	Virginia Solid Waste Regulations (VR 672-20-10)	
				Standardards for owners and operators of hazardous waste treatment, storage, and disposal facilities (40 CFR Part 264) and Subparts B through E	<i>∴</i>	
8	Sanitary and Storm Sewer System PRA: Groundwater Collection Followed by Air Stripping and Discharge to Surface Water	Groundwater	Chlorinated Compounds	Standardards for owners and operators of hazardous waste treatment, storage, and disposal facilities (40 CFR Part 264) and Subparts B through E	Virginia Solid Waste Regulations (VR 672-20-10)	
	(win Caroon treament of Air Discharge)		•	Occupational Safety and Health Act (29USC Section 651-678)	Virginia Hazardous Waste Management Regulations (Virginia Department of Waste Management, VR 672-10-01)	
				National Pollutant Discharge Elimination System (40 CFR Parts 122, 125)		In additional Federal regulations, local regulations also should be considered

September 16, 1993

ACTION SPECIFIC ARARs (Continued)

Open	Operable Unit (OU) and Preferred Remedial Alternative (PRA)		Contami-	Applicable	Applicable or Relevant and Appropriate Requirements	nts
OU No.	Description	Media	nant of Concern	Federal Standards	State Standards	Comments
				National Pretreatment Standards (40 CFR Part 403)		
				Clean Air Act National Ambient Air Quality Standards (40 CFR Parts 50, 52, 53, 60 and 61)		Emission to air has to be calculated and the need of compliance with National Ambient Air Quality Standards should be determined
9	Acid Pits PRA: Excavation and Off-Site Thermal Oxidation and Solidification	Soil	Total petroleum hydrocarbons and lead	Standardards for owners and operators of hazardous waste treatment, storage, and disposal facilities (40 CFR Part 264) and Subparts B through E	Virginia Hazardous Waste Management Regulations (Virginia Department of Waste Management, VR 672-10-01)	
				Occupational Safety and Health Act (29USC Section 651-678)	Virginia Solid Waste Regulations (VR 672-20-10)	
				Hazardous Materials Transportation Act (49 USC Section 1801-1813)		

TABLE 2-16: LOCATION SPECIFIC ARARS

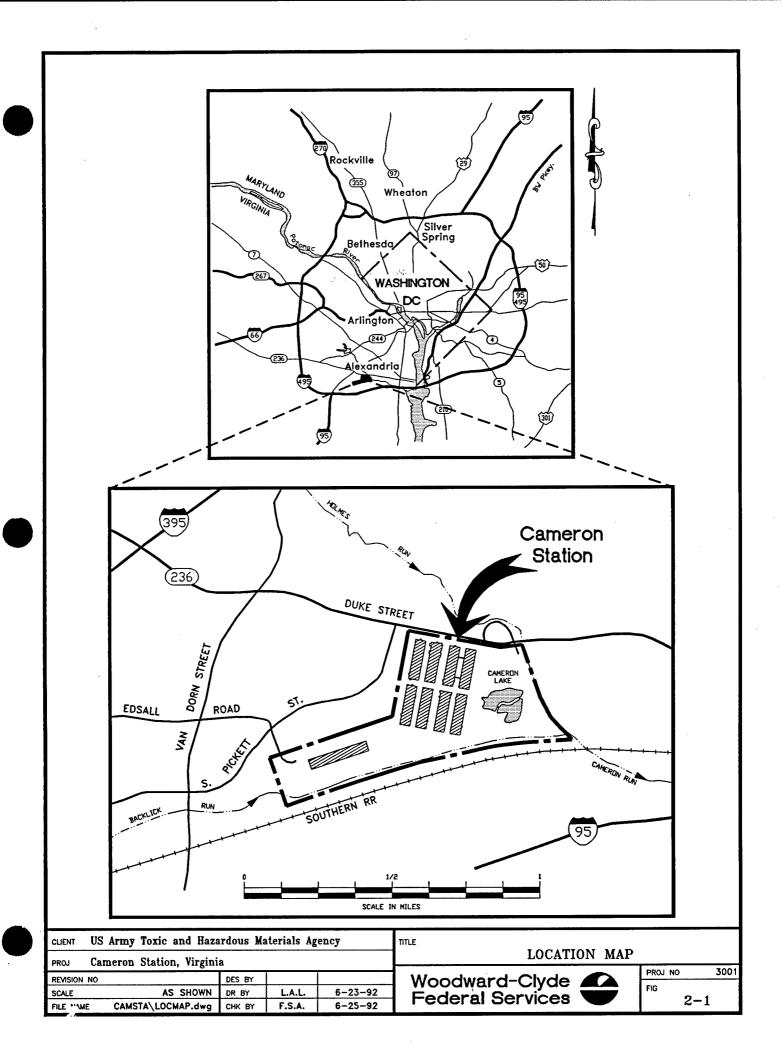
Oper. Re	Operable Unit (OU) and Preferred Renedial Alternative (PRA)		Contami-	Applicable	Applicable or Relevant and Appropriate Requirements	ents	
OU No.	Description	Media	nant of Concern	Federal Standards	Stante Standards	Risk- based Cleanup Goals	Comments
_	PCB TRANSFORMER	Soil	PCBs				
	rkd: Excavation and Up-Site Disposal in RCRA Landfill	Impermeable Solid Surface					
ю	Landfill PRA: Soil Capping and Monitoring the Landfill	Soil and Groundwater	Metals (Silver and Cadmium)				
4	Pesticides Use and Storage Areas PRA: Excavation and Off-Site Disposal in RCRA Landfill	Soil	Dioxin (Pesticides)		es y es está		
8	Sanitary and Storm Sewer System PRA: Groundwater Collection Followed by Air Stripping and Discharge to Surface Water (with Carbon Treatment of Air	Groundwater	Chlorinated Compounds	Executive Order on Flood Plain Management (Executive Order No. 11,988) (40CFR Part 6, Subpart A)	City of Alexandria Ordinance required by the Chesapeake Bay Ct (Ordinance No. 3558)		
9	Acid Pits PRA: Excavation and Off-Site Thermal Oxidation and Solidification	Soil	Total petroleum hydrocarbons and lead				

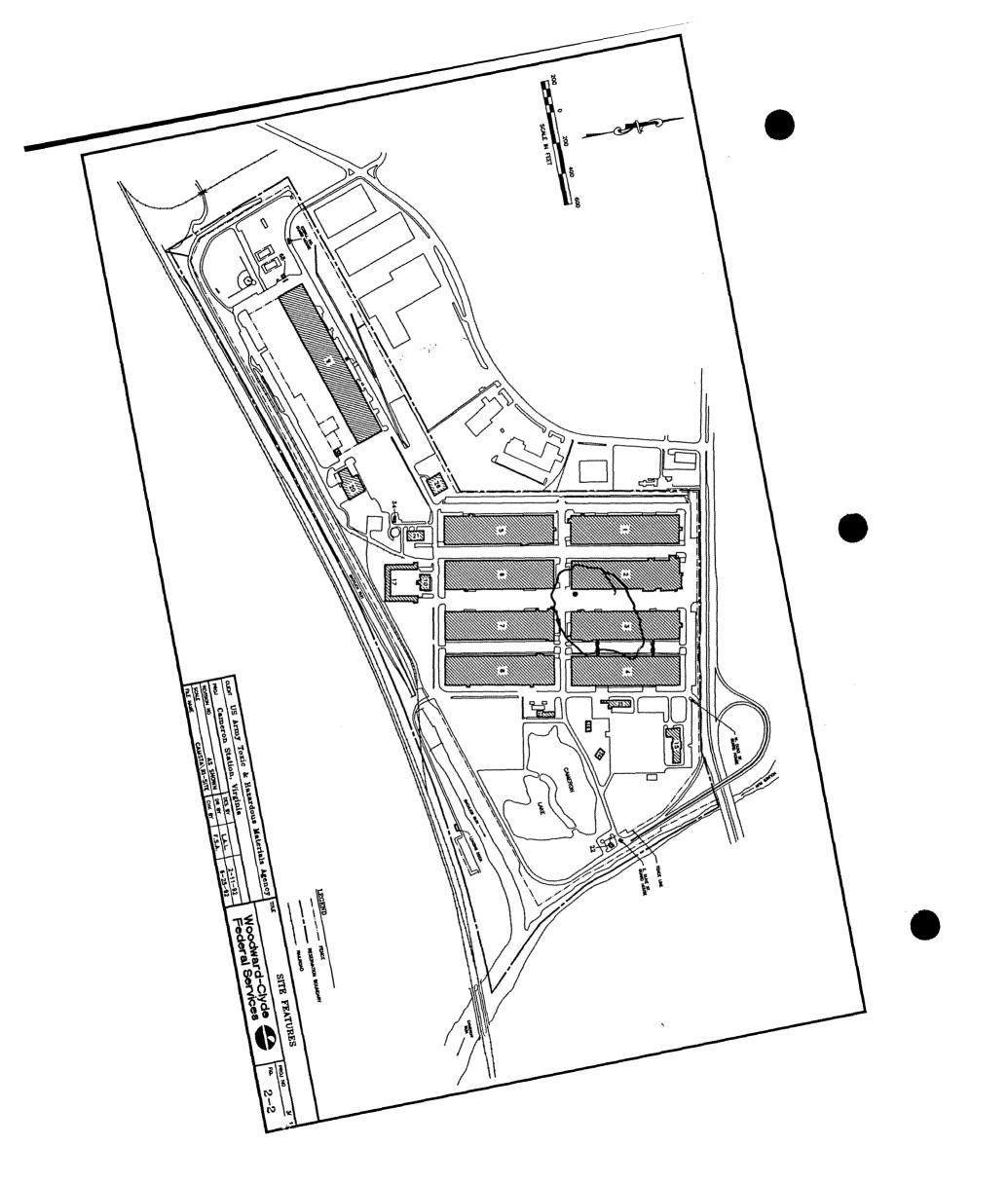
TABLE 2-17

CLEANUP GOALS FOR SOIL/SO CHEMICAL	LID WASTE IN CAMERON STATION CONCENTRATION
PCB (Soil)	Less than 1 mg/kg
PCB (Solid impervious surfaces - wipe)	10 ug/100 cm ²
Dieldrin	0.057 mg/kg
Dioxin	0.001 mg/kg
Lead	500 mg/kg
Total Petroleum Hydrocarbons	100 mg/kg

TABLE 2-18 CLEANUP GOALS FOR GROUNDWATER

Chemical	Cleanup Goal (μg/L)
Lead	15
Zinc	50
Cadmium	0.4
Chlordane	0.01
Heptachlor	0.001
Trichloroethylene (TCE)	5
1,1-dichloroethylene (1,1-DCE)	7
Benzene	5
Toluene	1000





3.1 OVERVIEW

The public reaction to the preferred alternatives during the public comment period was positive although one commenter recommended that the Army consider Alternative 5-3 instead of 5-2 for OU-5. Only three people had questions or comments regarding the Proposed Plan during the public comment period.

3.2 BACKGROUND AND COMMUNITY INVOLVEMENT

General community interest in Cameron Station has been minimal. Army and Federal regulations require public involvement in the RI/FS process. As a result, community interviews were conducted in August 1992. A total of 18 persons throughout the local community were interviewed through the use of a questionnaire. Information obtained from the interviews was used to develop a Public Involvement and Response Plan.

Notices of public comment period were placed in four local newspapers on March 4 and April 15, 1993. The comment period to review the Proposed Plan was established from March 4, through April 3, 1993. The comment period was ultimately extended an additional 30 days to May 3, 1993 at the request of a commenter.

3.3 SUMMARY OF PUBLIC COMMENTS AND AGENCY RESPONSE

The following is a summary of the questions/comments raised during the 60-day public comment period and how the Army has addressed these issues:

- (1) The Alexandria Health Department requested that the 30-day public comment period be extended.
 - Army response: The comment period was extended 30 additional days.
- (2) In addition, the Health Department wanted the Army to reconsider

(2) In addition, the Health Department wanted the Army to reconsider the use of Alternative 5-2 for OU-5 and replace it with Alternative 5-3. They were concerned about volatiles being released to the air during the treatment of the contaminated groundwater.

Army response: The U.S. Army Environmental Center (USAEC) forwarded a letter of response to the Health Department indicating that the Army had reconsidered and would change the method of cleanup to Alternative 5-3. Subsequent to that letter, it was determined that the same level of protectiveness would be achieved by adding carbon treatment to the air discharge from the Alternative 5-2 air stripper, while still providing a cost savings over Alternative 5-3. The USAEC discussed this option and received the Health Department's concurrence that Alternative 5-2 with the addition of carbon treatment of the air discharge would be selected.

(3) Commenter wanted to know how to place a bid to perform restoration.

Army response: USAEC informed commenter to call a point of contact at the Baltimore District Corps of Engineers since they would be performing all remediation at Cameron Station.

(4) Commenter wanted to know if USAEC could conduct a public meeting and focus on redevelopment.

Army response: USAEC informed commenter that a public meeting could be held, however only environmental issues presented in the Proposed Plan would be discussed. Commenter was given a point of contact at the office of Director of Planning and Community Development for the City of Alexandria and also the real estate point of contact for the Baltimore District Corps of Engineers to discuss redevelopment issues. Commenter no longer requested a public meeting.

(5) Commenter stated that all environmental risks associated with the contamination

at Cameron Station should be eliminated and that cleanup of contamination should be performed according to regulatory standards.

Same Service

Army response: USAEC forwarded a letter to the commenter assuring this person that all remediation would be conducted according to applicable regulatory cleanup standards and performed consistent with the approach defined in the Proposed Plan.

- Agency for Toxic Substances and Disease Registry (ATSDR). 1990a. Toxicological Profile for Aluminum (Draft), Atlanta, Georgia.
- Agency for Toxic Substances and Disease Registry (ATSDR). 1990b. Toxicological Profile for Carbon Disulfide (Draft), Atlanta, Georgia.
- Agency for Toxic Substances and Disease Registry (ATSDR). 1990c. Toxicological Profile for Cobalt (Draft), Atlanta, Georgia.
- Agency for Toxic Substances and Disease Registry (ATSDR). 1991a. Toxicological Profile for Arsenic (Draft), Atlanta, Georgia.
- Agency for Toxic Substances and Disease Registry (ATSDR). 1991b. Toxicological Profile for Cadmium (Draft), Atlanta, Georgia.
- Agency for Toxic Substances and Disease Registry (ATSDR). 1991c. Toxicological Profile for Di(2-ethylhexyl)phthalate (Draft), Atlanta, Georgia.
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- Hanna, S.R., Briggs, G.A., Hosker, R.P., Jr. 1982. Handbook on Atmospheric Diffusion, U.S. Department of Energy, Oak Ridge, Tennessee.
- ICF Technology Incorporated. 1990a. Cameron Station Remedial Investigation Sampling Design Plan, Final Document, Task Order No. 10, RI/FS Contract No. DAAA15-88-D-0009.

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- U.S. Army Corps of Engineers. 1991. Baltimore District. Draft Environmental Impact Statement, Comprehensive Base Realignment/Closure and Fort Belvoir Development, Baltimore, MD.
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- U.S. EPA. 1989c. RCRA Facility Investigation (RFI) Guidance, Volume I of IV, Development of an RFI Work Plan and General Considerations for RCRA Facility Investigations, EPA/530/SW-89-031, Washington, D.C.
- U.S. EPA. 1989d. Guidance on Preparing Superfund Decision Documents, Interim Final, EPA/540/6-89/007, Washington, D.C.
- U.S. EPA. 1990. Guidance for Data Useability in Risk Assessment, Interim Final, EPA/540/G-90/008, Washington, D.C.
- U.S. EPA. 1991a. Health Effects Assessment Summary Tables, Fourth Quarter FY1991, OERR 9200.6-303 (91-4), Washington, D.C.
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- Woodward-Clyde Federal Services. 1993b. Cameron Station Feasibility Study Final Reports. Prepared for under Delivery Order 0001, Contract DAAA15-90-D-0010.

APPENDIX A

GLOSSARY

- Applicable or Relevant and Appropriate Requirements (ARARs): The federal and state requirements that a selected remedy must attain. These requirements may vary among sites and alternatives.
- Benzene: A volatile organic compound associated with gasoline; also used as a solvent.
- Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), or Superfund: A federal law passed in 1980 and modified in 1986 by the Superfund Amendments and Reauthorization Act. The Act created a trust fund, known as Superfund, to investigate and cleanup abandoned or uncontrolled hazardous waste sites.
- Decision Document (DD): A document that describes the final remedial actions selected for a site, why the remedial actions were chosen and others not, how much they will cost, and how the public responded.
- 1, 2-Dichloroethane: A volatile organic compound associated with solvents; sometimes used as a gasoline additive.
- Groundwater: Water found beneath the earth's surface in geologic formations that are fully saturated. When it occurs in sufficient quantity, groundwater can be used as a water supply.
- Interim Remedial Action (IRA): An agreement between the State Agency and the owner(s) of a site for rapid response action to control or reduce the spread of contamination.
- Operable Unit: A portion of a site that has been conceptually separated from the rest of the site to allow for easier management.
- Polychlorinated Biphenyls (PCBs): A semi-volatile organochlorine compound used in dielectric fluids for their insulating and non-degradational properties.
- **Present Worth:** A term used to indicate the discounting of sums to be received in the future to their present value equivalent, or the amount which will accumulate to that sum if invested at assumed interest rates.
- Remedial Design (RD): Preparation of plans and specifications so that the selected remedial actions for a site can be constructed or implemented.

Remedial Investigation/Feasibility Study (RI/FS): A two-part study of a hazardous waste site that supports the selection of a remedial action for a site. The first part, the RI, identifies the nature and extent of contamination at the site. The second part, the FS, identifies and evaluates alternatives for addressing site contamination.

Trichloroethene: A volatile organic compound commonly associated with solvents.

Volatile Organic Compounds (VOCs): Organic liquids that readily evaporate under atmospheric conditions. Example compounds include trichloroethene (TCE) and benzene.

APPENDIX B

EXPOSURE POINT CONCENTRATIONS OF CHEMICALS OF POTENTIAL CONCERN AT CAMERON STATION

EXPOSURE POINT: CAMERON LAKE MEDIUM: SURFACE WATER UNITS: MG/L

	U MULTIPLIER: 0	0.5							
									EXPOSURE
									POINT
	CHEMICAL	HITS	TOTAL	HXX	MIN	MEAN	STDS	95th	CONCENTRATION
	1 2,2-BIS (PARA-CHLOROPHENTL)-1,1-DICHLOROETHANE	0	1	4.28-05	4.2E-05	4.2E-05	0.02+00	4.28-05	4.25-05
	(PARA-CHLOROPHENTL)-1	0	•	4.7B-05	4.72-05	4.72-05	0.05+00	4.78-05	4.75-05
		0	-	6.0E-03	5.0E-03	5.1E-03	3.8E-04	5.4E-03	5.45-03
	4 ACETONE	0	1	5.0E-03	5.0E-03	5.02-03	0.02+00	5.0E-03	5.05-03
	S ALPHA CHLORDANE	0	1	1.0E-05	1.0E-05	1.0E-05	0.0E+00	1.05-05	1.08-05
	6 ALUMINUM	•	1	5.4E-02	5.4E-02	5.4E-02	0.02+00	5.48-02	5.48-02
	7 ANTHRACENE	0	1	6.0E-03	5.0E-03	5.1E-03	3.8E-04	5.48-03	5.42-03
	# ARSENIC	0	7	3.0E-03	3.0E-03	3.0E-03	0.02+00	3.0E-03	3.02-03
	9 BARIUM	•	7	2.98-02	1.02-02	2.58-02	6.75-03	2.98-02	2.9E-02 .*
_	0 BENZO () ANTHRACENE	0	1	6.05-03	5.0E-03	5.1E-03	3.82-04	5.48-03	5.48-03
***	1 BENZO (a) PTRENE	0	7	6.02-03	5.0E-03	5.12-03	3.85-04	5.48-03	5.42-03
-	2 Benzo (d) Pluoranthene	0	1	6.0E-03	5.0E-03	5.12-03	3.8E-04	5.48-03	5.42-03
_	3 BENZO [k] FLUORANTHENE	0	~	6.0E-03	5.02-03	5.12-03	3.85-04	5.48-03	5.48-03
_	4 BENZOIC ACID	0	~	2.58-02	5.02-03	1.15-02	9.75-03	1.85-02	1.85-02
_	S BERTLLIUM	0	7	1.32-03	1.32-03	1.35-03	0.05+00	1.35-03	1.35-03
-	6 BIS (2-ETHYLHEXYL) PHTHALATE	, ~	7	1.35-02	5.0E-03	6.32-03	3.05-03	8.58-03	6.55-03
-	7 CADMIUM		7	7.1E-03	2.52-03	3.22-03	1.82-03	4.4E-03	4.46-03
_	8 CHLORIDE	•	۲,	7.7E+01	1.32+01	6.1E+01	2.2E+01	7.78+01	7.72+01
_	9 CHROMIUM	0	~	7.5E-03	7.58-03	7.5E-03	0.0E+00	7.5E-03	7.52-03
44	0 CHRYSENE	0	1	6.0E-03	5.0E-03	5.1E-03	3.8E-04	5.4E-03	U. 48-03
-4	1 COBALT	0	7	1.35-02	1.32-02	1.32-02	0.02+00	1.3E-02	1.32-02
~	2 Endosulpan sulpate	0	7	1.02-05	1.08-05	1.0E-05	0.0E+00	1.05-05	1.05-05
~	3 FLUORANTHENE	0	7	6.02-03	5.0E-03	S.1E-03	3.82-04	S.4E-03	S.4E-03
4	4 FLUORENE	0	-	6.02-03	5.02-03	5.12-03	3.85-04	5.48-03	5.4E-03
74	S FLUORIDE	7	1	2.0E-01	1.4E-01	1.8E-01	2.9E-02	2.18-01	1.45-01
7	6 gama-chlordane	0	1	2.38-05	2.3E-05	2.3E-05	0.02+00	2.38-05	2.3E-05
7	7 INDENO [1,2,3-c,d] PYRENE	0	•	6.08-03	5.02-03	5.15-03	3.8E-04	5.48-03	5.4E-03
,,,	18 LEAD	-	. 1	1.6E-03	6.38-04	7.62-04	3.68-04	1.08-03	1.05-03
,¥	29 MERCURY	0	1	3.7E-04	3.75-04	3.7E-04	0.02+00	3.7E-04	3.75-04
m	10 NICKEL	0	-	3.2E-02	3.22-02	3.2E-02	0.0E+00	3.28-02	3.25-02
•	1 NITRATE	1	2	5.72-01	2.2E-01	4.0E-01	1.12-01	4.8E-01	4.62-01
m	-	0	7	5.58-03	5.5E-03	5.5E-03	0.05+00	5.58-03	5.58-03
~	33 PCB 1260	0	~	1.85-04	S.0E-05	6.82-05	4.7E-05	1.0E-04	1.05-04
~		0	-	6.0E-03	5.0E-03	5.12-03	3.8E-04	5.48-03	5.42-03
•		0	7	6.02-03	5.0E-03	5.12-03	3.82-04	5.48-03	5.42-03
Α.		-	1	8.2E-04	2.5E-04	3.32-04	2.1E-04	4.9E-04	10-26-7
37	7 SULPATE	7	1	1.35+01	2.92+00	1.12+01	3.82+00	1.48+01	1.32+01 +

EXPOSURE POINT: CAMERON LAKE MEDIUM: SEDIMENT UNITS: MG/KG U MULTIPLIER: 0.5

EXPOSURE	CONCENTRATION	6.55-01	8.55-01	3.0E-01	6.0E-01	4.98+03	3.95-01	1.28+01	6.98+01	8.35-01	7.0E-01	9.1E-01	8.6E-01	3. (E-01	5.92+00	1.02+00	5.0E-01	4.78+01	1.05+00	1.48+01	8.58-01	1.8E+00	3.35-01	3.2E-01	1.48+02	4.48-02	7.85+00	8.5E-01	1.52+00	1.82+00	5.1E-01
	95th	8.52-01	8.5E-01	3.0E-01	6.05-01	4.9E+03	3.92-01	1.22+01	6.98+01	8.3E-01	7.02-01	9.15-01	8.62-01	3.45-01	5.92+00	1.02+00	5.02-01	4.78+01	1.05+00	1.42+01	0.52-01	1.82+00	3.32-01	3.22-01	1.45+02	4.4E-02	7.82+00	8.5E-01	1.58+00	1.82+00	5.15-01
	STDS	0.02+00	0.0E+00	1.52-01	0.0E+00	2.4E+03	2.5E-01	6.6E+00	2.8E+01	6.12-01	5.22-01	6.62-01	6.45-01	2.05-01	5.58+00	7.78-01	3.2E-01	3.78+01	7.5E-01	6.22+00	0.05+00	1.45+00	1.82-01	1.85-01	9.98+01	0.02+00	4.58+00	0.0E+00	1.2E+00	1.5E+00	0.08+00
	HEAN	8.5E-01	\$.5E-01	2.1E-01	10-20-9	3.52+03	2.48-01	8.4E+00	5.32+01	4.8E-01	3.9E-01	5.35-01	4.9E-01	2.38-01	2.7E+00	5.85-01	3.18-01	2.58+01	5.7E-01	1.02+01	8.52-01	9.98-01	2.2E-01	2.2E-01	8.0E+01	4.4E-02	5.28+00	8.52-01	8.3E-01	9.7E-01	S.1E-01
	MIN	8.5E-01	8.5E-01	1.7E-01	6.0E-01	6.92+02	1.7E-01	6.4E+00	2.4E+01	1.7E-01	1.7E-01	1.7E-01	1.72-01	1.7E-01	4.6E-01	1.7E-01	2.1E-01	3.5E+00	1.72-01	1.32+00	8.5E-01	1.7E-01	1.7E-01	1.7E-01	S.0E+00	4.4E-02	3.8E+00	8.52-01	1.7E-01	1.72-01	S.1E-01
	HAX	8.52-01	8.52-01	6.4E-01	6.0E-01	9.3E+03	9.6E-01	2.72+01	1.0E+02	2.0E+00	1.75+00	2.0E+00	2.0E+00	8.0E-01	1.8E+01	2.1E+00	1.28+00	1.3E+02	2.4E+00	2.12+01	8.52-01	4.6E+00	7.5E-01	7.3E-01	3.1E+02	4.4E-02	1.8E+01	8.52-01	3.8E+00	4.7E+00	5.1E-01
	TOTAL	10	2	10	10	2	2	10	2	2	2	10	2	10	10	2	2	10	2	2	2	2	10	10	2	2	2	2	10	2	10
	HITS	o	0	-	0	10	-	-	90		2	•		-	2	~	-	10	~	•	0	•		-	∞	•		•	•	~	
	СВЕЙІСАЬ	1 2,2-BIS (PARA-CHLOROPHENYL)-1,1-DICHLOROETHANE	2 2,2-BIS (PARA-CHLOROPHENYL)-1,1-DICHLOROETHENE	3 ACENAPHTHENE	ACETONE	5 ALUMINUM	6 ANTHRACENE	7 ARSENIC	_	_	10 BENZO (a) PYRENE	11 BENZO [b] FLUORANTHENE	12 Benzo (k) Fluoranthene	13 BENZOIC ACID	14 BERYLLIUM	IS BIS (2-ETHYLHEXYL) PHTHALATE	16 CADMIUM	17 CHROMIUM	18 CHRYSENE	19 COBALT	20 ENDOSULFAN SULFATE	21 FLUORANTHENE	22 FLUORENE	23 INDENO [1,2,3-c,d] PYRENE	24 LEAD	25 MERCURY	26 NICKEL	27 PCB 1260 ·	28 Prenanthrene	29 PYRENE	30 SILVER

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DATE: 06/09/92 FILE: STAT-3

EXPOSURE POINT: CAMERON LAKE MEDIUM: FISH TISSUE UNITS: MG/KG

EXPOSURE POINT .	HITS TOTAL MAX MIN MEAN STDS 95th CONCENTRATION	2 2 1.1E-01 4.0E-02 7.3E-02 4.8E-02 2.9E-01 1.1E-01 +		~	1 2 1.9E+01 7.5E+00 1.3E+01 6.4E+00 5.1E+01 1.9E+01 +	-	1.3E+00 2.1E+00 1.1E+00 7.1E+00 2	0 2 3.9E-02 3.9E-02 3.9E-02 0.0E+00 3.9E-02 3.9E-02	2.1E-01 2.1E-01 0.0E+00 2.1E-01	1 2 6.28+00 2.08+00 4.18+00 3.08+00 1.88+01 6.28+00 +	1.7E+00 1.9E+00 3.6E-01 3.5E+00	2.3E-02 2.3E-02 0.0E+00 ERR 2	5.8E-03 1.8E-02 1.7E-02 9.4E-02	2.7E-01 2.7E-01 0.0E+00 2.7E-01 2	1.3E-02 3.2E-02 2.7E-02 1.5E-01	1 2 4.05+00 1.25+00 2.65+00 1.95+00 1.15+01 4.05+00 +	7.1E-03 2.0E-01 1	10 10 1 10 10 10 10 10 10 10 10 10 10 10
	CHEMICAL	2,2-BIS (PARA-CHLOROPHENYL)-1,1-DICHLOROETHANE	2,2-bis (Para-Chlorophenyl)-1,1-dichloroethene	ALPHA CHLORDANE	ALUMINUM	ARSENIC	BARIUM	BERTLLIUM	CADMIUM	CHROMIUM	COBALT	ENDOSULFAN SULPATE	GAMMA-CHIORDANE	LEAD	MERCURY	NICKEL	PCB 1260	0.000

3555 L

EXPOSURE POINT: LANDFILL HEDIUM: SURFACE SOLL UNITS: HG/KG U MULTIPLIER: 0.5

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X	3 1.78+00 6.58-01 1.18+00 1.78+00 8.58-01 1.18+00 1.78+00 8.58-01 1.18+00 1.78+01 1.78+01 1.18+00 1.78+01 1.78	### TOTAL HAN HEAN STDS ##################################
### 1	### MEAN ###################################	#IN HEAN STDS # 555-01 1.18+00 4.98-01 2 8.58-01 1.18+00 4.98-01 2 8.58-01 1.18+00 4.98-01 2 8.58-01 1.18+00 4.98-01 2 1.78-01 1.18+00 4.98-01 2 1.78-01 2.28-01 9.58-02 3 1.78-01 2.28-01 9.58-02 3 1.78-01 2.28-01 9.58-02 3 1.78-01 1.28+00 6.08+00 6.08+00 6.08+00 6.08+00 6.08+01 1.78-01 1.28+00 1.78-01 1.28+00 1.78-01 1.28+00 1.38+00 1.78-01 1.28+00 1.38+00 1.78-01 1.18+00 4.98-01 2.88-01 1.18+00 4.98-01 2.88-01 1.18+00 4.98-01 2.88-01 1.18+00 4.98-01 2.88-01 1.18+00 4.98-01 2.88-01 1.18+00 4.98-01 2.88-01 1.18+00 4.98-01 2.88-01 2.88+01 6.08+00 6.08-01 6.08+00 6.08-01 2.88+01 6.08+00
	HEAN 1.11 H + + + + + + + + + + + + + + + + + +	#EAN #FAN #FAN #FAN #FAN #FAN #FAN #FAN #F
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EXPOSURE POINT: SERVICE ROAD HEDIUM: SURFACE SOIL UNITS: MG/KG

CHEMICAL	HITS	TOTAL	HOX	HIN	HEAN	STDS	95th	CONCENTRATION
2.2-BIS (PARA-CHIOROPHENYL)-1.1.1-TRICHIOROFIHANE	c	4	S KP. A1			0		
2.2-BIS (PARA-CHLOROPHENTI)-1.1-DICHLOROFTHANE	• •	•			10101		70-07-0	10-36-0
(PARA-CHIOROPHENYI.) - 1 - 1-DICHIOROF						900	10000	70-90-8
Nabulations	> <	٠,	10-90-9	10-20-6	10-90-9	0.08+00	10-20-0	10-26-01
	>	•	1./5-01	1.75-01	1.75-01	0.05+00	10-21	1.75-01
ACENAPBIBENS		•	8.8E-01	1.7E-01	2.82-01	2.9E-01	5.22-01	S.2E-01
ACETONE	•	•	6.0E-01	6.02-01	6.02-01	0.08+00	6.05-01	6.0E-01
ALUMINUM .	•	9.	7.05+03	2.82+03	4.6E+03	1.7E+03	6.08+03	6.05+03
anteracene		•	1.42+00	1.7E-01	3.7E-01	5.08-01	7.65-01	7.85-01
BARIUM	•	•	9.38+01	1.98+01	10+37-7	2.78+01	A. KRADI	10-23-7
DENIENE	•	•	6.05-01	6.02-01	6.05-03	0-08+00	6.03-01	10-20-9
BENZO (a) ANTHRACENE	-	•	3.28+00	1.78-01	6.75-01	1.28+00	1.78+00	40-10-10-10-10-10-10-10-10-10-10-10-10-10
BENZO [a] PYRENE	-	•	2.48+00	1.77-01	5.48-01	28-01	1.38400	00140
BENZO (b) FLUORANTHENE	-	•	2.78400	1 78-01				00.00
9	٠,-	•		1000	10000			00+00
	• •	٠,	10-49-6	10.07.1	10-96-7	3.25-01	20-99-0	3.05-01
DEREC (A) FLOORATEENS		•	Z.0E+00	1.72-01	4.7E-01	7.5E-01	1.15+00	1.12+00
BEKILLIUM	~	•	9.58-01	1.32-01	3.7E-01	3.9E-01	6.95-01	6.92-01
BIS (2-ETHILHEXIL) PHIHALAIE	0	•	1.7E-01	1.72-01	1.72-01	0.08+00	1.78-01	1.7E-01
CHROMIUM	•	•	2.2E+01	4.9E+00	1.12+01	5.8K+00	1.65+01	1.62+01
CHRYSENE	-	•	3.2B+00	1.7E-01	6.75-01	1.28+00	1.78+00	1.78+00
COBALT	•	•	1.85+01	3.7E+00	9.58+00	5.3E+00	1.48+01	1.48+01
DIBENZOFURAN	-	•	3.68-01	1.7E-01	2.0E-01	8.05-02	2.62-01	2.6E-01
DIELDRIN	0	•	8.52-01	8.5E-01	8.5E-01	0.02+00	8.5E-01	6.58-01
ENDOSULFAN SULFATE	0	•	8.5E-01	0.5E-01	8.5E-01	0.08+00	8.5E-01	8.5E-01
ENDRIN RETONE	0	•	8.52-01	8.52-01	8.52-01	0.08+00	8.5E-01	6.5E-01
ethylbenzene		•	6.0E-01	6.05-01	6.0E-01	0.08+00	6.08-01	6.05-01
TLUORANTHENE	~	6	4.8E+00	1.75-01	9.85-01	1.98+00	2.5E+00	2.58+00
TUORENE	-	ø	7.48-01	1.7E-01	2.6E-01	2.4B-01	4.58-01	1.52-01
heptachlor	0	•	8.52-01	8.52-01	8.52-01	0.08+00	8.5E-01	8.52-01
HEPTACHLOR EPOXIDE	0	•	8.5E-01	8.5E-01	8.5E-01	0.08+00	0.5E-01	8.5E-01
INDENO [1,2,3-c,d] PYRENE	-	•	1.28+00	1.7E-01	3.3E-01	4.1E-01	6.7E-01	6.7E-01
LEAD	~	•	1.68+01	5.02+00	8.2E+00	5.0E+00	1.25+01	1.2E+01
HETHILISOBUTIL KETONE	ъ	•	6.0E-01	6.0E-01	6.05-01	0.02+00	6.08-01	6.05-01
HOLYBDENUK	6	•	2.0E+00	2.0E+00	2.05+00	0.08+00	2.02+00	2.05+00
Kaphthalene	•	•	1.72-01	1.7E-01	1.7E-01	0.08+00	1.75-01	1.72-01
NICKEL	0	•	3.82+00	3.85+00	3.82+00	0.08+00	3.85+00	3 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
PCB 1260	•	9	8.5E-01	8.5E-01	1.52-01	0.08+00	8.5K-01	10-25-0
Phenanteres		•	3.92+00	1.7E-01	7.95-01	1.58+00	2.18+00	2.18+00
Pyrene	***	•	4.42+00	1.78-01	8.8E-01	1.78+00	2.35+00	2.38+00
Toluring	0	•	6.0E-01	6.02-01	6.0E-01	0.08+00	6.08-01	6.05-01
Vanadium	0	•	1.8E+01	6.82+00	1.02+01	4.58+00	1.48+01	1.48+01
XXIENES, TOTAL COMBINED	•							

EXPOSURE POINT: FENCELINE HEDIUM: SOIL UNITS: MG/KG U MULTIPLIER: 0.5

U MULTIPLIER: 0.5	5.0							EXPOSURE	
свенісал	RITS	TOTAL	МХ	MIM	HEAN	STDS	95th	Point Concentration	
SWELLZOGOTHOLOTT - Londing of the case, see a	•	18	2.38-01	4.82-03	4.45-02	6.3E-02	7.0E-02	7.02-02	
1,1-bis (FAM-Chichenis)	-	18	5.52-02	•,	1.25-02	1.6E-02	1.9E-02	1.95-02	
		18	1.1E-01	•	2.2E-02	3.1E-02	3.58-02	3.58-02	
1,1-513 (FARA-CALOROPORTAL) 1,1-1,1-1,1-1,1-1,1-1,1-1,1-1,1-1,1-1,1	~		1.52-01	•	1.62-02	3.72-02	3.25-02	3.2E-02	
A. C. D. T. K. L. C. ELCONOMINATION OF THE CONTROL	-		6.88-01		5.52-02	1.62-01	1.22-01	1.25-01	
2,4+DichickOrdenckinchiic Acid		18	1.72-01	3.5E-03	1.6E-02	4.12-02	3.2E-02	3.2E-02	
A TATABLE CONTRACTOR OF THE CO	. ~	18	1.75-01	• • •	1.32-02	3.9E-02	2.9E-02	2.9E-02	
ALPAN CALCAME		-	3.98-02		7.8E-03	1.12-02	1.25-02	1.28-02	
		=	6.58-02	_	1.3E-02	1.9E-02	.2.1E-02	2.1E-02	
EMPOSULFAN BULFALE			3.15-02		8.02-03	1.05-02	1.25-02	1.28-02	
ENDRIN REIONE	, c	. =	1.12-01		2.15-02	3.05-02	3.42-02	3.4E-02	
GAMMA-CBLOKDANE		. =	4.85-02	_	9.6E-03	1.48-02	1.5E-02	1.58-02	
REFINCHEOR			2.08-02	2.08-03	3.98-03	5.72-03	6.2E-03	6.28-03	
HEFTACHLON EPONIUS		: ::	5.02-01		1.08-01	1.52-01	1.62-01	1.62-01	
FCB 1200									

. San j

EXPOSURE POINT: BUILDING 30 HEDIUM: SOIL UNITS: MG/KG U MULTIPLIER: 0.5

U MULTIPLIER: 0.5	٠. د							EXPOSURE
CHEMICAL	HITS	TOTAL	MAX	MIN	MEAN	STDS	95th	Point Concentration
2 2-81% (PASA-CHIOROPHENYI)-1.1-1-TRICHIOROFTHAN	~	~	7.4E+00	3.8E+00	5.62+00	2.5E+00	1.72+01	7.48+00 *
2 2 ET CASS CHIOROPENTI. 1 - DICHIOROPTHANE	~	7	1.4E+00	7.9E-01		•	"	1.45+00 *
2 3 2 24 CAROLTHIODOURING - 1 1 - DICHIOROGIHENE	7	~	2.4E+00	1.5E+00		_	•	2.4E+00 •
Stage Office Committee of the stage of the s		~	7.92-02	9.0E-03	-	4.9E-02	••	7.98-02 *
DEFA. WINDSHIPS / PUDDSHIPS IT	0	~	1.45-01	1.4E-01	•	_	_	1.45-01
	•	~	2.6E-02	2.6E-02	• • •	_	••	2.65-02
	•	7	3.52-01	3.5E-01		_	••,	3.55-01
	•	~	8.02-02	\$.0E-02		_	_	8.02-02
		~	8.6E-02	1.9E-02	٠.	_	•••	8.6E-02 *
	•	~	6.05-03	6.0E-03	_	_	_	6.02-03
	•	~	1.82-02	1.8E-02		_	•	1.85-02
	•	7	4.0E-01	2.5E-01	3.35-01	1.12-01	8.02-01	4.02-01
PCB 1260	-		1.42-01	1.4E-01	1.42-01	_	1.48-01	1.45-01

EXPOSURE POINT: BOLMES RUN MEDIUM: SURFACE WATER UNITS: MG/L U MULTIPLIER: 0.5

								POINT
CHEMICAL	BITS	TOTAL	HAX	MIN	MEAN	8178	95th	CONCENTRATION
2,2-BIS (PARA-CHLOROPHENYL)-1,1-DICHLOROETHANE	0	~	4.2E-05	4.28-05	4.28-05	0.08+00	4.28-05	4.28-05
1 2,2-BIS (PARA-CHLOROPHENYL)-1,1-DICHLOROETHENE	٥	7	4.7E-05	4.78-05	4.78-05	0.08+00	4.7K-05	4.78-05
ACENAPHTHENE	0	~	5.0E-03	5.0E-03	5.0E-03	0.08+00	5.08-03	10 - 10 · 10
ACETONE	0	~	5.0E-03	5.0E-03	5.0E-03	0.02+00	5.05-03	5.08-03
S ALPRA CHIORDANE	0	7	1.02-05	1.05-05	1.02-05	0.08+00	1.08-05	1.05-05
S ALUMINUM	0	~	5.4E-02	5.4E-02	5.4E-02	0.08+00	5.4E-02	5.48-02
Anthracene	0	~	5.02-03	5.0E-03	5.0E-03	0.08+00	5.08-03	5.08-03
ARSENIC	0	7	3.05-03	3.02-03	3.02-03	0.0E+00	3.0E-03	3.08-03
BARIUM	7	7	3.9E-02	3.1E-02	3.5E-02	5.78-03	6.1E-02	3.9E-02 •
Ξ	0	~	5.0E-03	5.0E-03	5.02-03	0.08+00	S.0K-03	5.05-03
	0	7	5.02-03	5.02-03	5.02-03	0.02+00	5.0K-03	5.05-03
	0	7	5.02-03	5.02-03	5.0E-03	0.0E+00	5.05-03	5.08-03
13 Benzo (k) Fluoranthene	0	7	5.02-03	5.08-03	5.0E-03	0.02+00	5.02-03	5.08-03
BENZOIC ACID	٥	7	2.5E-02	2.58-02	2.5E-02	0.05+00	2.58-02	2.5E-02
Bertleum	0	7	1.3E-03	1.32-03	1.32-03	0.0E+00	1.38-03	1.38-03
BIS (2-ETHYLHEXYL) PHTHALATE	0	7	5.0E-03	5.05-03	5.0E-03	0.08+00	S.0E-03	5.08-03
CADNIUM	-	7	5.1E-03	2.5E-03	3.82-03	1.92-03	1.28-02	5.1E-03 +
CHLORIDE	~	7	5.8E+01	5.82+01	5.8E+01	0.0E+00	5.08+01	5.88+01
CHROHIUM	0	7	7.52-03	7.5E-03	7.5E-03	0.0K+00	7.5K-03	-7.5E-03
CHRISENE	0	~	5.02-03	5.0E-03	5.0E-03	0.02+00	5.0K-03	. 5.0E-03
COBALT	0	7	1.32-02	1.32-02	1.32-02	0.0E+00	1.3E-02	1.38-02
Endosulpan sulpate	-	7	5.78-05	1.0E-05	3.3E-05	3.3E-05	1.85-04	5.7E-05 +
PLUORANTHENE	•	~	5.05-03	5.02-03	\$.0E-03	0.08+00	S.0E-03	5.08-03
PLUORENE	0	~	5.05-03	5.0E-03	S.0E-03	0.02+00	5.08-03	5.0E-03
FLUORIDE	0	7	2.0E-01	2.0E-01	2.0E-01	0.08+00	2.08-01	2.08-01
GAMMA-CHIORDANE	٥	~	2.3E-05	2.32-05	2.32-05	0.08+00	2.3E-05	2.38-05
INDENO [1,2,3-c,d] PYRENE	0	7	5.0E-03	5.02-03	5.02-03	0.0E+00	5.0E-03	5.08-03
LEAD	•	7	6.3E-04	6.3E-04	6.3E-04	0.0E+00	6.38-04	6.35-04
	0	7	3.7E-04	3.7E-04	3.72-04	0.02+00	3.7E-04	3.7E-04
10 NICKEL	•	7	3.2B-02	3.2E-02	3.2E-02	0.0E+00	3.2E-02	3.28-02
	~	~	2.3E+00	1.2E+00	1.72+00	7.85-01	5.28+00	2.38+00 +
	0	~	5.58-03	5.52-03	5.5E-03	0.05+00	5.58-03	5.58-03
33 PCB 1260	0	7	5.02-05	5.08-05	5.02-05	0.08+00	5.08-05	5.0E-05
	٥	7	5.0E-03	5.0E-03	5.0E-03	0.02+00	S.0E-03	5.0E-03
	•	7	5.0E-03	5.0E-03	5.02-03	0.0E+00	5.0E-03	5.08-03
36 SILVER	•	~	2.5E-04	2.52-04	2.52-06	0.05+00	2.5E-04	2.58-04
SULTAIL	~	~	1.42+01	1.22+01	1.32+01	1.12+00	1.88401	1.48401

DATE: 03/31/92 FILE: STAT-10

EXPOSURE POINT: HOLMES RUN MEDIUM: SEDIMENT UNITS: MG/KG U MULTIPLIER: 0.5

8.5	CHEHICAL	HITS	TOTAL	MAX	MIN	HEAN	STOS	95th	Point Concentration
~	2,2-BIS (PARA-CHLOROPHENYL)-1,1-DICHLOROETHANE	0	~	8.5E-01	8.5E-01	8.55-01	0.02+00	10-25-0	8.5E-01
	2,2-BIS (PARA-CHLOROPHENYL)-1,1-DICHLOROETHENE	0	~	8.5E-01	8.5E-01	8.58-01	0.02+00	8.5E-01	8.32-01
-	Acenaphthene	0	7	1.75-01	1.75-01	1.75-01	0.02+00	1.75-01	1.75-01
-	ACETONE	•	7	6.0E-01	6.0E-01	6.0E-01	0.02+00	6.02-01	6.08-01
	ALUMINUM	~	7	1.62+03	9.18+02	1.25+03	4.72+02	3.4E+03	1.68+03 *
	ANTERACENE	•	~	1.72-01	1.7E-01	1.78-01	0.02+00	1.7E-01	1.78-01
	ARSENIC	0	7	6.4E+00	6.42+00	6.48+00	0.02+00	6.42+00	6.48+00
	BARIUM	~	7	1.48+01	1.48+01	1.4E+01	0.02+00	1.42+01	1.45+01
	BENZO [a] ANTHRACENE	-	7	7.0E-01	1.7E-01	4.3E-01	3.82-01	2.12+00	7.02-01
- 20	BENZO [a] PYRENE	-	~	6.0E-01	1.7E-01	3.8E-01	3.1E-01	1.82+00	6.0E-01 *
200	BENIO [b] FLUORANTHENE	-	7	5.62-01	1.7E-01	3.62-01	2.8E-01	1.6E+00	5.6E-01 •
	BENZO [k] FLUORANTHENE		7	6.02-01	1.7E-01	3.82-01	3.15-01	1.82+00	6.05-01
- 20	BENZOIC ACID	•	~	1.7E-01	1.72-01	1.7E-01	0.05+00	1.7E-01	1.75-01
	BERTLLIUM	-	7	8.7E-01	1.32-01	5.0E-01	S.3E-01	2.92+00	8.7E-01 •
	BIS (2-ETHYLHEXYL) PHTHALATE	•	7	1.7E-01	1.78-01	1.7E-01	0.02+00	1.72-01	1.78-01
	CADMIUM	0	7	2.15-01	2.1E-01	2.1E-01	0.05+00	2.1E-01	2.1E-01
	CHROMIUM	-	7	5.48+00	4.98-01	2.9E+00	3.52+00	1.82+01	S.48+00 *
	CHRYSENE	-1	~	8.52-01	1.72-01	5.18-01	4.92-01	2.7E+00	8:5E-01 •
	COBALT	-	7	5.3E+00	1.3E+00	3.32+00	2.82+00	1.6E+01	\$.3E+00 •
	Endosulpan sulpate	٥	7	8.52-01	8.58-01	8.52-01	0.0E+00	8.5E-01	8.5E-01
	FLUORANTHENE	-	~	1.62+00	1.7E-01	9.02-01	1.02+00	5.52+00	1,65+00
	FLUORENS	•	7	1.7E-01	1.7E-01	1.72-01	0.02+00	1.7E-01	1.78-01
	INDENO [1,2,3-c,d] PYRENE	•	~	1.75-01	1.7E-01	1.7E-01	0.05+00	1.75-01	1.7E-01
	LEAD	•	7	5.0E+00	5.0E+00	5.02+00	0.05+00	5.02+00	5.08+00
	HERCURY	•	~	4.4E-02	4.4E-02	4.4E-02	0.02+00	4.4E-02	4.48-02
	NICKEL	0	~	3.82+00	3.85+00	3.8E+00	0.05+00	3.82+00	3.88+00
	PCB 1260	0	~	8.5E-01	8.58-01	8.5E-01	0.0E+00	8.52-01	8.58-01
	Phenanterene	-	7	1.62+00	1.7E-01	9.0E-01	1.0E+00	S.5E+00	1.68+00 •
	PYRENE	-	7	1.5E+00	1.78-01	8.3E-01	9.4E-01	5.02+00	1.58+00
	SILVER	•	7	5.1E-01	5.1E-01	5.1E-01	0.0E+00	S.1E-01	5.1E-01

EXPOSURE

DATE: 03/31/92 FILE: STAT-11

EXPOSURE POINT: BACKLICK RUN MEDIUM: SURFACE MATER UNITS: MG/L

									POINT	
	CERNICAL	HITS	TOTAL	KVX	MIM	HEAN	STDS	95th	CONCENTRATION	
~	2,2-bis (Para-Chlorophenyl)-1,1-dichlorofhane	0	~	4.2E-05	4.2E-05	4.2E-05	0.08+00	4.28-05	4.28-05	
~	2,2-BIS (PARA-CHLOROPHENYL)-1,1-DICHLOROETHENE	0	7	4.7E-05	4.78-05	4.7E-05	0.02+00	4.7E-05	4.78-05	
~	Acenaphthene	0	7	5.0E-03	5.02-03	5.08-03	0.02+00	5.08-03	5.08-03	
~	ACETONS	0	7	5.02-03	5.08-03	S.0E-03	0.02+00	5.05-03	5.08-03	
m	alpha chlordane	0	7	1.0E-05	1.0E-05	1.08-05	0.02+00	1.0E-05	1.08-05	
•	ALUMINUM	-	7	3.02-01	5.42-02	1.75-01	1.75-01	9.48-01	3.08-01 *	
-	Anteracene	0	~	5.02-03	5.08-03	5.08-03	0.02+00	S.0E-03	5.0E-03	
•	Arbenic	.	~	3.0E-03	3.02-03	3.05-03	0.02+00	3.0K-03	3.08-03	
•	Barium	~	~	6.2E-02	6.02-02	6.1E-02	1.82-03	6.9E-02	6.28-02 +	
9	BENZO [a.) ANTHRACENE	0	7	5.02-03	5.02-03	5.02-03	0.02+00	5.05-03	5.02-03	
=	BENIO (*) PYRENE	0	7	5.06-03	5.05-03	5.02-03	0.08+00	5.02-03	5.08-03	
77	Beneo (d) Fluoranthene	٥	7	5.0E-03	5.02-03	5.08-03	0.02+00	S.0E-03	5.08-03	
Ξ	Benzo (k) Fluoranthene	0	~	5.02-03	5.0E-03	5.05-03	0.02+00	5.08-03	5.08-03	
7	BENIOIC ACID	0	~	2.5E-02	2.5E-02	2.58-02	0.05+00	2.58-02	2.58-02	
22	Bertlium	0	7	1.35-03	1.35-03	1.35-03	0.02+00	1.38-03	1.38-03	
91	BIS (2-ETHYLBEXYL) PHTHALATE	0	~	5.02-03	5.0E-03	5.05-03	0.02+00	5.08-03	5.0E-03	
11	CADMIUM	0	7	2.5E-03	2.5E-03	2.5E-03	0.05+00	2.5E-03	2.58-03	
18	CHLORIDE	~	7	4.52+01	4.48+01	4.4E+01	3.52-01	4.6E+01	4.5E+01 •	
13	CHROMIUM		~	7.58-03	7.58-03	7.52-03	0.02+00	7.58-03	7.58-03	
20	Chrysene	0	~	5.02-03	5.08-03	5.0E-03	0.05+00	5.08-03	5.08-03	
77	COBALT	0	~	1.35-02	1.38-02	1.35-02	0.08+00	1.38-02	1.38-02	
33	Endosulpan sulpate	0	7	1.05-05	1.0E-05	1.0E-05	0.02+00	1.08-05	1.08-05	
53	Fluoranthene	0	~	. S. 0E-03	5.02-03	5.08-03	0.02+00	5.08-03	5.08-03	
75	FLUORENE	0	7	5.02-03	5.0E-03	5.0E-03	0.02+00	S.0E-03	S.0E-03	
25	FLUORIDE	0	~	2.0E-01	2.0B-01	2.0E-01	0.08+00	2.0K-01	2.08-01	
76	Ganna-Chlordane	0	7	2.38-05	2.38-05	2.38-05	0.05+00	2.38-05	2.31-05	
21	INDENO [1,2,3-c,d] PTRENE	0	~	5.0E-03	5.08-03	S.0E-03	0.05+00	5.08-03	5.0E-03	
5	TEND	0	7	6.35-04	6.38-04	6.32-04	0.05+00	6.38-04	6.38-04	
53	MERCURY	0	~	3.72-04	3.72-04	3.7E-04	0.05+00	3.78-04	3.7E-04	
30	NICKEL	0	~	3.2E-02	3.2E-02	3.2E-02	0.05+00	3.2E-02	3.2K-02	
=	NITRAIE	~	~	1.12+00	9.98-01	1.05+00	6.8E-02	1.38+00	1.18+00 •	
32	NITRITE	0	~	5.58-03	5.58-03	5.55-03	0.02+00	5.5E-03	5.58-03	
33	PCB 1260	•	~	S.0E-05	5.0E-05	5.02-05	0.05+00	5.08-05	5.08-05	
3	PHENANTHRENE	0	~	5.05-03	5.0E-03	S.0E-03	0.02+00	5.08-03	S.0E-03	
33	PYRENS	0	~	5.0E-03	5.0E-03	5.0E-03	0.05+00	5.0E-03	5.0K-03	
36	SILVER	-	~	4.72-04	2.55-04	3.65-04	1.65-04	1.18-03	4.78-04 +	
37	SULPATE	7	~	1.4E+01	1.48+01	1.4E+01	1.8E-01	1.58+01	1.48+01 •	

DATE: 06/09/92 FILE: STAT-12

EXPOSURE POINT: BACKLICK RUN MEDIUM: SEDIMENT UNITS: MG/KG U MULTIPLIER: 0.5

U MULTIPLIER: 0.5	s							Adiisodka
								POINT
CHENICAL	HITS	TOTAL	HAX	HIN	MEAN	STDS	95th	CONCENTRATION
	c	-	8.58-01	8.52-01	8.58-01	0.02+00	ERR	8.5E-01 *
2,2-BIS (PARA-CHLOROPHENIE) -1,1-DICHLOROEINARE	• •		B.5E-01	8.52-01	8.58-01	0.02+00	ERR	8.5E-01 ·
A-CHLOROPHENT LJ - 1 , 1 - D 1 CHLORO	۰ د		1.78-01	1.75-01	1.7E-01	0.02+00	ERR	1.7E-01 *
ACENAPHTHENE	, c	•	6.0E-01	6.0E-01	6.02-01	0.02+00	ERR	6.02-01
ACETONE	• -		8.5E+02	8.52+02	8.58+02	0.0E+00	ERR	8.5E+02 *
ALONING			1.78-01	1.72-01	1.72-01	0.05+00	ERR	1.78-01 *
ANTHRACENE		•	6.4E+00	6.42+00	6.42+00	0.02+00	ERR	6.4E+00 *
ARSENIC	-	-	1.32+01	1.32+01	1.32+01	0.02+00	ERR	1.32+01 +
BARIUM	, c	. –	1.78-01	1.72-01	1.75-01	0.05+00	ERR	1.72-01
BENZO (a) ANTHRACENE			1.72-01	1.72-01	1.78-01	0.05+00	ERR	1.7E-01 *
BENZO (a) PYRENE			1.75-01	1.75-01	1.72-01	0.05+00	ERR	1.7E-01 +
BENZO [D] FLUORANIBENE			1.78-01	1.72-01	1.72-01	0.02+00	ERR	1.78-01 *
BENZO (K) FLUORANTHENE		-	1.7E-01	1.72-01	1.72-01	0.0E+00	ERR	1.72-01
BENZOIC ACID		. ~	1.3E-01	1.35-01	1.3E-01	0.0E+00	ERR	1.32-01
DERVILLION			1.78-01	1.75-01	1.72-01	0.02+00	ERR	1.75-01
BIS (2-EIHIDHEAID) PRINAMIE			2.1E-01	2.18-01	2.1E-01	0.02+00	ERR	2.1E-01 *
CADATUR		-	3.42+00	3.42+00	3.4E+00	0.08+00	ERR	3.48+00 *
CERCATION			1.7E-01	1.72-01	1.72-01	0.05+00	ERR	1.75-01 +
CHRISENS		-	2.8E+00	2.82+00	2.8E+00	0.02+00	ERR	2.8E+00 +
COBALT		-	8.5E-01	8.52-01	8.5E-01	0.02+00	ERR	8.5E-01 *
ENDOSOLEAN SOLEATE			1.78-01	1.72-01	1.72-01	0.02+00	ERR	1.78-01 *
FLUORANTHENE	• •	-	1.7E-01	1.7E-01	1.72-01	0.02+00	ERR	1.75-01
FLUORENE	• •	-	1.78-01	1.7E-01	1.72-01	0.02+00	BRR	1.7E-01 *
INDENO [1,2,3-c,a] FIRENE			2.07.400	5.02+00	S.0E+00	0.02+00	ERR	5.08+00 +
CAL			4.48-02	4.48-02	4.48-02	0.02+00	ERR	4.4E-02 *
MERCURI			3.88+00	3.88+00	3.82+00	0.05+00	BRR	3.62+00 *
NICKEL	, ,	• •	- SE-01	8.5E-01	8.55-01	00+20-0	ERR	8.58-01 +
PCB 1260	•	• -	1 2 1 0 1	1 75-01	1.78-01	0.05+00	ERR	1.72-01 •
PHENANTHRENE	, c	• -	1.78-01	1.78-01	1.78-01	0.08+00	ERR	1.7E-01 •
PYRENE	, 0		5.18-01	5.1E-01	5.12-01	0.02+00	ERR	5.1E-01 +

DATA STATISTICS

EXPOSURE POINT: CAMERON RUN MEDIUM: SURFACE NATER UNITS: MG/L U MULTIPLIER: 0.5

EXPOSURE	POINT	CONCENTRATION	4.28-05	4.78-05	5.0E-03	S.0E-03	1.08-05	5.48-02	5.08-03	3.08-03	5.48-02 +	5.08-03	5.08-03	5.05-03	5.08-03	2.58-02 +	1.35-03	S.0E-03	2.5E-03	5.98+01 +	7.58-03	5.0E-03	1.38-02	1.05-05	S.08-03	5.01-03	2.0E-01	2.38-05	5.0E-03	6.35-04	3.75-04	3.2E-02	1.08+00 •	1.48-01 •	1.08-04 •	5.08-03	S.0E-03	* 90-26.9	1.48+01 •
		95th	4.25-05	4.7E-05	5.08-03	5.05-03	1.08-05	5.4B-02	S.0E-03	3.08-03	6.0B-02	S.0E-03	S.0K-03	5.08-03	5.08-03	3.88-02	1.38-03	5.08-03	2.58-03	6.38+01	7.58-03	5.08-03	1.38-02	1.08-05	5.0E-03	5.08-03	2.0E-01	2.38-05	5.05-03	6.38-04	3.7E-04	3.2E-02	1.08+00	1.85-01	1.28-04	5.0E-03	5.0E-03	8.2E-04	1.5E+01
		8018	0.0K+00	0.08+00	0.08+00	0.08+00	0.08+00	0.0110	0.0K+00	0.08+00	1.1E-02	0.08+00	0.0K+00	0.08+00	0.08+00	1.2K-02	0.05+00	0.08+00	0.0E+00	6.58+00	0.0110	0.010.0	0.0K+00	0.08+00	0.01400	0.08+00	0.05+00	0.0K+00	0.08+00	0.08+00	0.0E+00	0.08+00	5.88-02	7.8E-02	2.9E-05	0.0E+00	0.0K+00	2.58-04	1.05+00
		HEAN	4.2E-05	4.78-05	5.0E-03	5.0E-03	1.02-05	5.4E-02	5.0E-03	3.0E-03	4.1E-02	5.0E-03	S.0E-03	5.02-03	5.0E-03	1.85-02	1.3E-03	S.0E-03	2.5E-03	5.2E+01	7.5E-03	5.02-03	1.3E-02	1.0E-05	5.0E-03	5.08-03	2.0E-01	2.38-05	5.0E-03	6.35-04	3.7E-04	3.2E-02	9.4E-01	S.1E-02	6.75-05	5.02-03	5.0E-03	4.0E-04	1.3E+01
		HIN	4.28-05	4.78-05	5.05-03	5.05-03	1.0E-05	S.4E-02	5.02-03	3.0E-03	3.4E-02	5.05-03	5.05-03	5.0E-03	S.0E-03	5.05-03	1.32-03	5.05-03	2.55-03	4.62+01	7.52-03	5.02-03	1.32-02	1.08-05	5.0K-03	5.0E-03	2.0E-01	2.3E-05	5.0E-03	6.3E-04	3.7E-04	3.2E-02	8.9E-01	5.58-03	S.0E-05	5.0E-03	S.0E-03	2.5E-04	1.28+01
		KX	4.28-05	4.7E-05	5.02-03	5.02-03	1.0E-05	5.4E-02	5.0E-03	3.0E-03	S.4E-02	5.0E-03	5.0E-03	5.02-03	5.0E-03	2.5E-02	1.32-03	S.0E-03	2.5E-03	5.9E+01	7.5E-03	5.02-03	1.32-02	1.0E-05	5.05-03	5.02-03	2.0E-01	2.38-05	5.02-03	6.3E-04	3.7E-04	3.22-02	1.02+00	1.4E-01	1.05-04	5.0E-03	5.0E-03	6.9E-04	1.4E+01
		TOTAL	~	e.	m	E	•	•	~	~	~	~	~	•	m	~	•	~	~	_	~	~	~	Ä	m	~	~	•	~	~	•	m	~	~	~	~	~	~	m
nobitritari 0.3		HITS		•	•	•	•	0	•	0	•	•	•	0	•	•	•	•	0	•	•	•		•	•	0	•	0	•	0	0	•	~	-	•	•	•	-	m
1470 >		CHEMICAL	2,2-BIS (PARA-CHLOROPHENTL)-1,1-DICHLOROETHANE	2,2-BIS (PARA-CHLOROPHENTL)-1,1-DICHLOROETHENE	ACENAPHTEENE	ACETONE	ALPHA CHLORDANE	ALUMINUM	ANTHRACENE	ARSENIC	BARIUM	BENZO (*) ANTBRACENE	BENZO (*) PYRENE	BENZO (b) FLUORANTHENE	BENIO (k) FLUORANTHENE	BENIOIC ACID	BERTLIUM	DIS (2-ETHYLHEXYL) PHTHALATE	CADMIUM	CHLORIDE	CHROMIUM	CHRYSENE	COBALT	ENDOSULFAN SULFATE	FLUORANTHENE	PLUORENE	FLUORIDE	GAMMA-CHLORDANE	INDENO [1,2,3-c,d] PYRENE	LEAD	MERCURY	NICKEL	MITRATE	MITRITE	PCB 1260	PHENANTHRENE	PYRENE	SILVER	SULPATE

DATE: 03/31/92 FILE: 8TAT-14

EXPOSURE

EXPOSURE POINT: CAMERON RUN HEDIUM: SEDIMENT UNITS: MG/KG

 5.0	
U MULTIPLIER:	

	CHEMICAL	HITS	TOTAL	НАХ	MIM	HEAN	STDS	95th	POINT
-	2,2-BIS (PARA-CHLOROPHENYL)-1,1-DICHLOROBIHANE	0	m	8.5E-01	8.5E-01	8.5E-01	0.08+00	8.5E-01	8.58-01
~	2,2-BIS (PARA-CHLOROPHENTL)-1,1-DICHLOROETHENE	0	~	8.52-01	8.5E-01	8.5E-01	0.0E+00	8.5K-01	8.58-01
m	ACENAPHTHENE	0	m	1.75-01	1.72-01	1.78-01	0.08+00	1.78-01	1.78-01
~	ACETONS	-	~	1.9E+00	6.0E-01	1.02+00	7.78-01	2.4E+00	1.98+00 +
so.	aluhinuh	m	~	1.22+03	3.0E+02	6.58+02	4.5E+02	1.4E+03	1.2E+03 +
•	Anteracens	0	~	1.72-01	1.7E-01	1.78-01	0.08+00	1.78-01	1.78-01
-	Arsenic	0	~	6.4E+00	6.48+00	6.48+00	0.08+00	6.4B+00	6.48+00
-	Barium		•	6.52+00	2.4E+00	4.42+00	3.58+00	1.08+01	* 00+NS*
•	BENZO (*) ANTHRACENE	•	~	1.7E-01	1.78-01	1.75-01	0.08+00	1.7E-01	1.7E-01
20		0	~	1.72-01	1.7E-01	1.75-01	0.02+00	1.7E-01	1.75-01
Ξ	BENZO [b] FLUORANTHENE	0	m	1.72-01	1.7E-01	1.75-01	0.08+00	1.7E-01	1.72-01
13	Benzo (k) Pluoranthens	0	~	1.72-01	1.7E-01	1.75-01	0.08+00	1.7E-01	1.7E-01
13	BENZOIC ACID	0	~	1.78-01	1.72-01	1.72-01	0.08+00	1.75-01	1.7E-01
Ξ	BERTLLIUM	0	~	1.38-01	1.32-01	1.3E-01	0.08+00	1.38-01	1.38-01
13	DIS (2-ETHYLHENYL) PHTHALATE	0	m	1.7E-01	1.72-01	1.75-01	0.02+00	1.78-01	1.78-01
91	CADMIUM	•	~	2.1E-01	2.1E-01	2.1E-01	0.0K+00	2.15-01	2.18-01
11	CBROWIUM	7	~	5.48+00	4.92-01	2.6E+00	2.5E+00	6.88+00	S.4E+00
=	CERYSENS	0	•	1.75-01	1.75-01	1.76-01	0.08+00	1.78-01	1.75-01
2	COBALT	0	~	1.32+00	1.3E+00	1.32+00	0.08+00	1.35+00	1.38+00
20	endosulpan sulpate	0	~	8.52-01	8.5E-01	0.5E-01	0.08+00	8.5E-01	6.5E-01
77	FLUORANTHENE	0	~	1.72-01	1.72-01	1.75-01	0.0E+00	1.78-01	1.7E-01
77	FLUORENE	0	~	1.72-01	1.72-01	1.75-01	0.08+00	1.78-01	1.7E-01
23	INDENO [1,2,3-c,d] PTRENE	0	•	1.72-01	1.78-01	1.78-01	0.08+00	1.75-01	1.78-01
7.	LEAD	0	~	5.05+00	5.05+00	5.0E+00	0.02+00	5.05+00	5.0K+00
25	MERCURY	0	m	4.4E-02	4.4E-02	4.45-02	0.08+00	4.48-02	4.4E-02
76	NICKEL	0	m	3.8E+00	3.85+00	3.8E+00	0.08+00	3.85+00	3.85+00
23	PCB 1260	0	m	8.52-01	8.52-01	8.5E-01	0.05+00	8.5E-01	8.5E-01
75	Phenanthrens	0	พ์	1.72-01	1.7E-01	1.75-01	0.08+00	1.75-01	1.78-01
23	PIRENE	0	'n	1.7E-01	1.72-01	1.72-01	0.08+00	1.7E-01	1.7E-01
30	Silver	0	m	S.1E-01	5.1E-01	5.1E-01	0.02+00	5.15-01	5.12-01

1

DATE: 06/09/92 FILE: STAT-15

EXPOSURE POINT: FUTURE YARD HEDIUM: SOIL UNITS: MG/KG

0.5
MULTIPLIERS
5

EXPOSURE	POINT CONCENTRATION	3.28-01	2.7E-01	2.65-01	3.05-03	1.48-02	3.58-03	1.75-01	2.15-01	5.35-01	2.15-01	4.7E+03	2,52-01	4.62+01	5.32-01	1.82-01	2.15-01	1.98-01	1.62-01	3.75-01	6.92-01	6.78-02	3.05-01	1.22+01	2.28-01	9.88+00	1.72-01	2.72-01	3.32-01	2.78-01	5.38-01	2.85-01	1.75-01	1.62-01	2.6E-01	2.78-01	1.68-01	9.58+00	1.18-01	5.3E-01	2.75+00	2.25-01	9.48+00	3.32-01
	95th	3.28-01	2.72-01	2.8E-01	3.0E-03	1.48-02	3.52-03	1.78-01	2.12-01	5.32-01	2.1E-01	4.7E+03	2.52-01	4.62+01	5.38-01	1.8E-01	2.15-01	1.95-01	1.6E-01	3.72-01	6.9E-01	6.7E-02	3.0E-01	1.2E+01	2.22-01	9.85+00	1.72-01	2.75-01	3.35-01	2.75-01	5.32-01	2.8E-01	1.78-01	1.65-01	2.6E-01	2.75-01	1.68-01	9.52+00	1.12-01	5.32-01	2.72+00	2.2E-01	9.42+00	3.32-01
	STS	3.78-01	3.48-01	3.42-01	0.08+00	0.05+00	0.08+00	9.88-03	5.4E-02	2.85-01	4.4E-01	2.92+03	1.0E-01	3.32+01	2.8E-01	2.7E-02	5.78-02	3.7E-02	1.9E-02	2.42-01	3.4E-01	6.1E-02	1.7E-01	9.38+00	6.98-02	7.98+00	9.82-03	3.4E-01	3.2E-01	3.4E-01	2.8E-01	1.2E-01	9.88-03	3.48-01	3.58-01	3.58-01	2.6B-02	6.68+00	1.0E-01	2.8E-01	9.2E-01	6.4E-02	8.1E+00	3.48-01
	MEAN	2.35-01	1.8E-01	1.92-01	3.0E-03	1.42-02	3.52-03	1.72-01	1.95-01	4.35-01	8.05-02	3.52+03	2.2E-01	3.22+01	4.3E-01	1.75-01	1.95-01	1.85-01	1.6E-01	2.82-01	5.4E-01	3.7E-02	2.32-01	8.52+00	2.02-01	6.52+00	1.75-01	1.88-01	2.52-01	1.92-01	4.32-01	2.35-01	1:78-01	6.6E-02	1.85-01	1.82-01	1.58-01	6.72+00	6.1E-02	4.32-01	2.2E+00	1.92-01	6.05+00	2.45-01
	MIN	4.8E-03	5.0E-03	2.0E-03	3.0E-03	1.4E-02	3.58-03	1.75-01	1.7E-01	5.0E-03	9.2E-04	1.6E+02	1.7E-01	2.4E+00	1.5E-03	1.58-01	1.7E-01	1.7E-01	1.2E-01	1.75-01	1.3E-01	9.0E-03	1.7E-01	4.92-01	1.75-01	7.1E-01	1.7E-01	2.55-03	6.5E-03	3.15-03	1.7E-03	1.72-01	1.7E-01	1.9E-03	5.0E-04	1.8E-03	1.15-01	4.82+00	1.3E-02	5.0E-03	2.0E+00	1.7E-01	1.2E+00	2.7E-02
	HXX	1.2E+00	8.5E-01	8.5E-01	3.0E-03	1.4E-02	3.5E-03	2.1E-01	3.8E-01	6.0E-01	2.6E+00	1.2E+04	5.6E-01	1.4E+02	6.0E-01	2.7E-01	4.0E-01	3.2E-01	1.95-01	1.15+00	1.4E+00	2.4E-01	8.8E-01	4.0E+01	4.4E-01	3.2E+01	2.1E-01	8.5E-01	8.5E-01	8.5E-01	6.0E-01	5.8E-01	2.1E-01	2.0E+00	8.5E-01	8.SE-01	1.7E-01	3.2E+01	4.0E-01	6.0E-01	5.4E+00	4.2E-01	3.3E+01	8.5E-01
	TOTAL	Ş	=	:	•	•	9	71	77	22	33	11	17	11	21	21	=	21	21	77	11	=	21	11		11	71	=	=	=	77	21	22	32	=	.	21	11	13	21	=	21	11.	\$
3	HITS	13	~	01	0	0	0	0	0	0	•	17	0	15	0	0	0	0	0	0	=	-	7	13	٠ :	10	0		-	0	0	-	•	'n	-	0	0	~	•	0	-	0	7	~
	CHENICAL	1 2,2-BIS (PARA-CHLOROPHENYL)-1,1,1-TRICHLOROETHAN	2 2,2-BIS (PARA-CHIOROPHENYL)-1,1-DICHLOROETHANE	3 2,2-BIS (PARA-CHLOROPHENYL)-1,1-DICHLOROETHENE	4 2,4,5-TRICHLOROPHENOXYACETIC ACID	5 2,4-DICHLOROPHENOXYACETIC ACID	6 2-(2,4,5-TRICHLOROPHENOXY) PROPIONIC ACID	7 2-METHYLNAPHTHALENE	8 ACENAPATHENE	9 ACETONE	10 ALPHA CHLORDANE			13 BARIUM		15 BENZO [a] ANTHRACENE	16 BENZO [a] PYRENE	17 BENZO [b] FLUORANTHENE	18 BENZO (9,h,i) PERTLENE	19 BENZO (k) FLUORANTHENE	20 BERYLLIUM			23 CHROMIUM	24 CHRISENE	25 COBALT					30 ETHYLBERIERE	31 FLUORANTHENE		33 GAMMA-CHIORDANE			36 INDENO [1,2,3-c,d] PYRENE			39 METHYLISOBUTYL KETONE	40 MOLYBDENUM	41 Napathalene	42 NICKEL	43 PCB 1260

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DATE: 06/09/92 FILE: STAT-15

EXPOSURE POINT: FUTURE TARD
MEDIUM: SOLL
UNITS: MG/KG
U MULTIPLIER: 0.5

44 PHENANTHRENE 45 PYRENE 46 TOLUENE 47 VANADIUM 48 XYLENES, TOTAL COMBINED

CHEMICAL

exposure Point

EXPOSURE POINT: TRANSPORMER POLES HEDIUM: SOIL UNITS: MG/KG U MULIPLIER: 0.5

	CHEMICAL	HITS	TOTAL	HOX	MIM	MEAN	STDS	95th	CONCENTRATION
-	2.2-BIS (PARA-CHLOROPHENYL)-1.1.1-TRICHLOROETHANE	•	•	4.98+00	3.6K-02	1.0K+00		•••	2.61100
	2.2-BIS (PARA-CHIOROPHENTI)-1,1-DICHLOROETHANE	•	•	1.2E-01	5.0E-03	5.6E-02	5.45-02	1.05-01	1.08-01
, e	2.2-BIS (PARA-CHLOROPHENTL)-1,1-DICHLOROETHENE	9	•	1.52+00	6.0E-03	3.48-01	-	_	6.25-01
₹	ALPHA CHIORDANE	•	so	1.0E-01	8.0E-03	4.3E-02		_	8.4K-02 .
*	BETA-ENDOSULFAN / ENDOSULFAN II	•	•	1.9E-02	9.05-03	1.38-02			1.68-02
•	BIEDEIN	•	9	3.0E-03	2.5E-03	2.6E-03			2.6E-03
-	PUDDEUTEAN SULPATE	•	•	1.48-01	2.2E-02	4.8E-02			8.5E-02
•	SECOND REPORT	•	•	1.2E-02	5.08-03	7.6E-03			9.68-03
•	CANOLA-CELORDANE	50	9	8.8E-02	2.02-03	4.1E-02			6.9E-02
. 0	HEDTACHION	7	•	6.02-03	S.0E-04	1.7E-03			3.5K-03
: :	REPTACHION EPOXIDE	7	•	6.05-03	2.0E-03	3.0E-03			5.48-03
12	METHOXYCHIOR	•	9	1.38+00	1.3E-02	4.6E-01			9.0E-01
13	PCB 1260	1	-	2.72-01	2.72-01	2.7E-01			2.78-01

DATA STATISTICS

DATE: 04/14/92 FILE: DIOXSTAT.WQ1

CHEMICAL: DIOXIN EQUIVALENTS MEDIUM: SOIL/SEDIMENT UNITS: MG/KG

EXPOSURE

SOURCE AREA	SAMPLES	MAX	MIN	MEAN	STDS	95th	POINT CONCENTRATION
BACKLICK RUN	3	1.3E-06	2.4E-07	7.0E-07	5.7E-07	1.7E-06	1.3E-06 *
CAMERON LAKE	2	1.7E-06	4.4E-07	1.1E-06	9.1E-07	5.1E-06	1.7E-06 *
FISH	2	3.0E-06	1.3E-06	2.2E-06	1.2E-06	7.6E-06	3.0E-06 *
HOLMES RUN	3	6.4E-07	2.9E-07	4.6E-07	1.7E-07	7.5E-07	6.4E-07 *
FENCELINE	21	4.7E-04	2.4E-06	7.7E-05	1.3E-04	1.3E-04	1.3E-04
RAIL LINES	8	9.1E-05	1.7E-06	2.7E-05	3.0E-05	4.7E-05	4.7E-05

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Summary of PM10 Air Concentrations at Exposure Points^(a)

Exposure Point	Exposure Scenario	Ann. Ave. PM10, kg/m3
Cameron Lake	Current Future	4.7E-09 4.7E-09
Gas Station (Bldg. 23)	Current	4.1E-09
Picnic Ground	Current Future	1.3E-08 1.3E-08
Ballfield	Current Future	3.7E-08 3.7E-08
Jogging Trail from Service Road	Current Future	5.2E-07 5.2E-07
Jogging Trail from Landfill	Current Future	3.8E-08 3.8E-08
Bldg. 30 Soil Area	Current Future	2.2E-08 NA ⁶⁾
Construction Site	Current Future	NA 2.4E-08

⁽a) The estimated PM10 air concentration is multiplied by the mass fraction of the chemical of potential concern to obtain the air concentration of the chemical.

⁽b) NA = Not applicable.

Box Model Estimations of VOC Air Concentrations Emitted From Subsurface Soils

	Estin	mated Air Co	ncentrations, l	kg/m3
		Camero	on Lake	
Chemical	Gas Station	Current	Future	Future Residence
Acetone	6.1E-15	5.9E-15	6.0E-14	5.9E-14
Benzene	4.3E-17	4.1E-17	4.2E-16	4.1E-16
Ethylbenzene	1.9E-18	1.9E-18	1.9E-17	1.9E-17
Methylisobutyl Ketone	7.9E-19	7.6E-19	7.7E-18	7.6E-18
Naphthalene	7.3E-20	7.0E-20	7.1E-19	7.0E-19
Toluene	7.9E-18	7.6E-18	7.7E-17	7.6E-17
Xylenes, Total	2.8E-17	2.7E-17	2.8E-16	2.7E-16

Box Model Estimation of VOC Air Concentrations
Emitted from Groundwater

		ated Air ions, mg/m3
Chemical	South Plume	North Plume
Benzene	1.2E-10	ND
TCE	ND	1.3E-10

APPENDIX C CARCINOGENIC AND NON-CARCINOGENIC RISKS AT CAMERON STATION

SUBCHRONIC EXPOSURE SUMMARY

FUTURE CONST-WORKER

)			ž	A.A.	00+30)			A 1.9E-09	2	0.02+00	42 PYRENE	
				*	00+30				A 0.0E+00		0.02+00	41 PHENOL	
					02+00				A 1.6E-09		0.02+00	40 PHENANTHRENS	
			: }		00100				٠		0.05+00	39 NAPHTHALENE	
			5	¥	04+00				•				
			*	¥	02+00								
			¥	TH.	02+00			•	•		0.02+00		
				TH.	00+30			•	A 2.1E-09	e e	0.02+00	36 FLUORANTHENS	
			KX.	XX.	02+00			•	A 0.0E+00	2	A 0.0E+00	35 DIBENZ [a,h] A	
			3	XX.	02+00				A 1.7E-09	2	0.02+00	34 CHRYSENE	
				XX	72-05			•		e NA	E 1.4E-06	33 BIS (2-ETHYLHE	
					00+30				A 2.8E-09	2	O 0.0E+00	32 BENZO [k] FLUC	
				X.	00+30				A 1.28-09		0.02+00	31 BENZO [g,h,i]	
				2	00+30				A 1.4E-09	2		10 BENZO [b] FLUO	
				**	02+00			•	A 1.5E-09	N.	E 0.0E+00	29 BENZO [a] PYRE	
				N.	00+30		•		A 1.3E-09	, and	H 0.0E+00	28 BENZO (a) ANTH	
•			2	XX.	00+30			•	A 1.9E-09	2	0.02+00	27 ANTHRACENE	
				T	02+00			•		2	0.02+00	26 ACENAPHTHENS	
				XX.	TAN AND AND AND AND AND AND AND AND AND A				N 0.08+00		L 0.0E+00	25 2-METHYLPHENOL	
				2	00+30					LI N	H 0.0E+00	24 2-METHYLNAPHTH	
				¥	00+20				0.02+00	E	H 0.0E+00	23 2,4-DIMETHYLPH	
			00+30	×.	00+30				0.08+00	E	B 0.0E+00	22 1,3-DIMETHYLBE	
			02+00		00+30		•		0.02+00	2	E 0.0E+00	21 1,2-DIMETHYLBE	
					/R-0/				٠		•	20 XYLENES, TOTAL	
		•			10-00				Ī			19 TOLUENE	
					18 00							TATOROSITABLEM 81	
			28-08	e i	78-06 50-06							1/ KIHILBENZENS	
			18-08	¥ 1	38-06							TO CAMBON DISOLET	
			02+00	=	02+00							16 Chance Diction	
			E	¥	*				1- 1		2.5E-06	15 BENZENE	
			=	A.	32-06				_		2.5E-06	14 ACETONE	
			*	X.	9E-03						6.6E-05	HUIDANAY ET	
			=	=	02+00				NA 0.08+00	_	0.02+00	12 THALLIUM	
			=	*	00+30				0.0E+00		0.02+00	11 SILVER	
				*	X				0.02+00	, and	0.02+00	10 NITRITE	
			*		NA.				0.02+00	XX.	0.02+00	9 NITRATE	
			=	×	22-03				7.02-08	N.A.	4.4E-05	8 NICKEL	
			08+00		00+30				0.02+00	T.	0.02+00	7 MERCURY	
			28-02	XX.	3E-03				9.22-08	N.	5.8E-05	6 CHROMIUM	
			=	X.	N.				0.02+00	0.02+00	R 0.0E+00	5 CADHIUN (WATER	
			=	A.	A.A.				0.02+00	0.02+00) 0.02+00	(CADMIUM (FOOD)	
			5	XX.	10-29				5.1E-09	XX.	3.2E-06	3 BERYLLIUM	
			32-04	A.	32-03				3.48-07	*	2.28-04	2 BARIUM	
08+00	08+00	02+00		XX.	02+00	0.02+00	0.02+00	0.02+00	0.0E+00		0.02+00	1 ARSENIC	
(FROM	(FROM WS5)	(PRON WS4)	(FROM WS3)	(FRON WS2)	(FROM WS1)	(FROM WS6)	(FROM WS5)	(FROM WS4)		(FRON WS2)	(FROM WS1)	CHEMICAL NAME	
_		0	HOLLYTVANI	DERMAL	ORAL	0	0		HOLLYTVHNI	DERHAL	ORAL		
0		0	AIR-PART	TIOS	TIOS	0	0	•	AIR-PART	TIOS	TIOS		
0		•	SIIS-NO	STIS-NO	ON-SITE	0	0			ON-SITE	ON-SITE		
5 SCENARIO 6	SCENARIO	SCENARIO 4	SCENARIO 3	SCENARIO 2	SCENARIO 1	SCENARIO 6	SCENARIO 5	SCENARIO 4	SCENARIO 3	SCENARIO 2	SCENARIO 1		
		THETTOK	SUBCHRONIC HAZARD QUOTIENT	SUBCHRO				E (mg/kg/day	SUBCHRONIC DAILY INTAKE (mg/kg/day)	SUBCERONIC			

SUBCHRONIC RISK SUMMARY

FUTURE CONST-WORKER

SITE NAME: CAMERON STATION
OPERABLE UNIT: DISK 1
FILE NAME: POP1
LAST UPDATED: 06/04/92

				92-02	POPULATION TOTAL				
00+80	.02 0E+00	22-02	02+00	75-02	(II) HIS AVMETTE				
	ė	02+	¥	* 02+00		0.02+00	¥	0,02+00	61 TRICHLOROPLUOR
	N.	-	¥	2E-06		2.6E-11	¥.	1.62-08	60 2-(2,4,5-TRICH
	F	_	¥	68-06		1.02-10	¥	6.42-08	59 2,4-DICHLOROPH
	M.		¥	1E-07		2.2E-11	¥	1.4E-08	58 2,4,5-TRICHLOR
	**	•	¥	X.		2.4E-09	9.6E-07	1.5E-06	57 PCB 1260
	#		¥	1E-04		8.3E-10	×	5.3E-07	56 METHOXYCHLOR
	T.A.		¥	08+00	٠	0.02+00	XX.	0.02+00	55 LINDANE / GANA
	¥		H	¥		2.0E-09	¥	0.02+00	54 HEPTACHLOR EPO
	2		E	2E-03		2.0E-09	¥	1.28-06	53 HEPTACHLOR
	H	-	¥	18-02		1.2E-09	XX	7.78-07	52 GANNA-CHLORDAN
	E	E	¥	28-02		2.0E-09	¥	1.2E-06	51 DIELDRIN
	E	_	X.	22-03		5.0E-10	N.	3.1E-07	50 BETA-ENDOSULFA
	¥		¥	08+00		0.0E+00	¥	0.02+00	49 BENZOIC ACID
	#		¥	02+00		0.02+00	X.	0.08+00	SOKESOTYZKEE 61
	¥		¥	28-02		1.52-09	K	9.88-07	17 ALPHA CHLORDAN
	F	-	£	02+00		0.02+00	K.	0.02+00	46 ALDRIN
			¥	¥		2.1E-09	XX.	1.3E-06	15 2,2-BIS (PARA-
	E	;	*	XX.		2.02-09	K.	1.38-06	44 2,2-BIS (PARA-
	#		Ĕ	3E-03		4.48-09		1.05-00	43 6/4-BIS (FAMA-

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CHRONIC EXPOSURE SUHHARY

FUTURE CONST-WORKER

			future Const-Worker	"					FUTURE CONST-WORKER	~		
	CCFULETO 1	CHRONIC DAI	16	1	Common of			CHRONIC	CHRONIC HAZARD QUOTIENT			
•	ON-SITE	ON-SITE	ON-SITE	O CENARIO .	0 S OTWANTO S	0 9 OTNIVIZOS	ON-SITE	ON-SITE	ON-SITE	SCENARIO 4	SCENARIO 5	SCENARIO 6
	TIOS	SOIL	AIR-PART	0	0	0	TIOS	TIOS	AIR-PART	0		0
CHENICAL NAME	ORAL FROM WS11	DERHAL DERHAL	NOITALIANI	O DOGA	O O	O O	ORAL MELL	DERWAL	NOITALION	o o		0
1 ARSENIC	0.02+00	N.	0.02+00	0.02+00	0.02+00	0.02+00	00+00	לא ניסטיי היסטיי)	A X	02+00	02+00	02+00
2 BARIUM	2.2E-04	X.	3.4E-07				3E-03	¥ ;	32-03	1	1	
3 BERYLLIUM	3.22-06	XX.	5.1E-09				6E-04	K.	E.			
4 CADMIUM (FOOD)		0.02+00	0.02+00				02+00	00+30	£			
5 CADMIUM (WATER		0.02+00	0.02+00	٠			02+00	02+00	¥			
6 CERONIUM	5.82-05	XX.	9.2E-08				1E-02	XX.	28-01			
7 MERCURY	0.02+00	#	0.02+00				02+00	¥.	08+00			
8 NICKEL	4.42-05	×	7.02-08				2E-03	¥	¥			
	0.02+00	XX.	0.02+00				02+00	X N	¥.			
10 NITRITE	0.02+00	Z.	0.02+00				00+a0	K N	X.			
12 THALLTON	0.02+00	N. A.	0.00+00				00+30		. 5			
HOTOVRYA ET	6.6E-05	X.	1.02-07				92-03	E 1	2 1			
14 ACETONE	2.5E-06	T.	4.02-09				3E-05	A	¥			
15 BENZENB		XX	4.02-09				T.	A.A.	Z.			
17 ETHYLHENZENE	2.58-06	2	4 08100	٠			00+30		08+00			
18 METEYLISOBUTYL	•	A.A.	4.08-09				5Z-05	E	28-07			
19 TOLUENE		¥.	4.02-09				1E-05	Z.	78-09			
20 XYLENES, TOTAL	•	T.	4.52-09				1E-06	A H	58-08			
21 1,2-DIMETHYLBE	0.08+00		0.02+00				00+20	X.	08+00			
23 2,4-DIMETHYLPH		¥ i	0.02+00				02+00		TR 00+80			
24 2-METHYLNAPHTH	_	K K	1.32-09				00+30	X	E			
25 2-METHYLPHENOL	0.02+00	E E	0.0200				00+20	A.A.	*			
27 ANTHRACENE	0.02+00	X	1.92-09				02+00	¥ \$				
28 BENZO [.] ANTH	_	K K	1.3E-09	•			0E+00	E :	E i			
29 BENZO (a) PYRE		A.	1.5E-09				00+30	X.	E ,			
		X.	1.42-09				00+30	X.	¥			
32 BENZO [g,n,1]	0.02+00	¥ ¥	7.28-09				02+00	X	:			
33 BIS (2-ETHYLHE		N.	2.28-09				7E-05	¥ \$	¥ 3			
34 CHRYSENE		YX	1.7E-09				02+00	¥	¥ ;			
		T.	0.02+00				00+30	Y.	¥			
	0.0420		2.1E-09				02+00	¥.	×			
38 INDENO (1.2.3-	0.08400	* *	1.28-09				08+00	£ \$	E 25			
		*	1.68-09				00+20	¥ ;	E i			
40 PHENANTHRENE	0.02+00	A.	1.62-09				02+00	N.	E		•	
	0.02+00	¥.	0.02+00				02+00	A.M.	A.A.			
A TINEME	0.00100	3	1.36-03				00+30	. 2	ž			

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CHRONIC RISK SUMMARY

SITE NAME: CAMERON STATION
OPERABLE UNIT: DISK 1
FILE NAME: POP1
LAST UPDATED: 06/04/92

			3E-01	POPULATION TOTAL	•			
00+00	2E-01 0E+00	02+00	92-02	PATHWAY SUH (HI)				
	02+00		02+00		0.02+00	¥	0.02+00	61 TRICHLOROFLUOR
	¥	¥	22-06		2.62-11	¥	1.6E-08	
	XX.		6E-06		1.0E-10	Ĕ	6.4E-08	2,4-DICHLOROPH
	¥		12-06		2.28-11	¥	1.4E-08	58 2,4,5-TRICHLOR
	F		X.		2.48-09	9.62-07	1.5E-06	PCB 1260
	¥		12-04		8.3E-10	¥	5.3E-07	56 METHOXYCHLOR
	¥		02+00		0.08+00	¥	0.02+00	LINDANE / GAMA
	¥		00+30		2.02-09	¥	0.02+00	HEPTACHLOR EPO
	¥		22-03		2.02-09	¥	1.2E-06	BEPTACHLOR
	*		1E-02		1.28-09	×	7.7E-07	GANNA-CHLORDAN
	¥		2E-02		2.02-09	X	1.28-06	DIELDRIN
	*		6E-03		5.02-10	X	3.1E-07	BETA-ENDOSULFA
	*		00+30		0.02+00	¥	0.02+00	BENZOIC ACID
	¥		02+00		0.02+00	X.	0.02+00	BENZALDEROE
	¥		22-02		1.52-09	¥	9.8E-07	ALPEA CELORDAN
	¥		02+00		0.02+00	XX.	0.02+00	ALDRIN
	¥		¥		2.1E-09	¥	1.3E-06	2,2-BIS (PARA-
	¥		A.A.		2.02-09	¥	1.3E-06	2,2-BIS (PARA-
	**		2E-03		4.4E-03	Ş	1.00-00	-WW. 010-7'P

LIPETIME RISK SUMMARY

Puture Const-Worker

SITE NAME: CAMERON STATION OPERABLE UNIT: DISK 1
FILE NAME: POP1 LAST UPDATED: 06/04/92

LIFETIME EXPOSURE SUMMARY

CONST-WORKER

8 BENZO [a] ANTH
9 BENZO [a] PYRE
0 BENZO [b] FLUO
1 BENZO [g,h,i] NICKEL NITRATE 2-Hethylnaphth 2-Hethylphenol HOIDWRYA NITRITE PYRENE NAPHTHALENE PLUORANTHENE DIBENZ [a,h] A CHRYSENE BIS (2-ETHYLHE 2,4-DIMETHYLPH 1,3-DIMETHYLBE 1,2-DIMETHYLBS XYLENES, TOTAL TOLUENE TALDEOSITABLEM **ETHYLBENZENE** BENZENB CARBON DISULFI ACETONE TRALLIUM PHENOL PHENANTHRENE INDENO [1,2,3-PLUORENE BENZO [k] FLUO ANTERACENE ACENAPHTHENE SILVER CADMIUM (WATER CADMIUM (FOOD) BERYLLIUM BARIUH ARSENIC MERCURY CHRONIUN CHEMICAL NAME. (FROM WS1) SOIL STIS-NO 0.0E+00 0.0E+00 0.02+00 0.02+00 0.02+00 0.02+00 3.62-08 0.02+00 0.0E+00 6.3E-07 0.02+00 0.0E+00 0.0E+00 0.0E+00 0.02+00 0.02+00 0.02+00 2.0E-08 0.0E+00 0.0E+00 0.02+00 0.02+00 0.08+00 0.0E+00 0.02+00 4.02-08 3.6E-08 0.02+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 4.6E-08 0.0E+00 3.6E-08 3.6E-08 3.6E-08 9.4E-07 8.3E-07 3.1E-06 ON-SITE SOIL DERHAL (FROM WS2) SCENARIO 2 LIPETIHE AVERAGE DAILY INTAKE (mg/kg/day) SCENARIO 3 SCENARIO 3 SCENARIO 4 SCENA 0.02+00 INHALATION (FROM WS3) ON-SITE AIR-PART 1.3E-09 0.0E+00 1.00E-09 0.0E+00 1.5E-09 5.6E-11 0.0E+00 5.6E-11 5.6E-11 5.6E-11 5.6E-11 0.02+00 0.02+00 0.02+00 0.02-10 0.02-11 0.02-11 2.72-11 1.92-11 1.92-11 1.92-11 1.92-11 1.92-11 1.92-11 1.92-11 1.92-11 1.92-11 1.92-11 1.92-11 0.0E+00 0.0E+00 0.0E+00 4.9E-09 7.3E-11 0.0E+00 0.08+00 0.02+00 (FROM WS4) 0.02+00 (FROM WSS) SCENARIO 0.02+00 (FROM WS6) SCENARIO 0.02+00 TIOS (FRON WS1) 02+00 (FRON WS2) TIOS DERHAL ON-SITE SCENARIO LIFETIME EXCESS CANCER RISK RIO 2 SCENARIO 3 SCENARIO ******************* (FROM HS3) HOLLYTYBNI AIR-PART STIS-NO 00+00 00+00 00+00 08+00 6E-10 (FROM WS4) (FROM WS5) SCENARIO 5 (PROH WS6) SCENARIO

					1.0E-06	POPULATION TOTAL EXCESS RISK				
02+00	02+00	0E+00	80-29	12-07	82-07	TOTAL PATHWAY CANCER RISK				
			F	ž	ğ		0.0E+00	¥	0.02+00	61 TRICHLOROFLUOR
			F	7	×	•	3.7E-13	X.	2.3E-10	60 2-(2,4,5-TRICH
			: }	7	.		1.42-12	X.	9.1E-10	59 2,4-DICHLOROPH
				2	*		3.28-13	Y.	2.0E-10	58 2,4,5-TRICHLOR
			.	· 18-07	2E-07		3.4E-11	1.4E-08	2.28-08	57 PCB 1260
			.	; 2			1.22-11	X.	7.5E-09	56 METHOXYCHLOR
			: ;	ž	02+00	-	0.02+00	¥.	0.02+00	55 LINDANE / GAMA
			 01-95	3	02+00		2.8E-11	K.	0.02+00	54 HEPTACHLOR EPO
			18-10	:	B0-28		2.8E-11	X.	1.8E-08	53 HEPTACHLOR
			11-82	3	12-08		1.7E-11	¥	1.12-08	52 GANNA-CHLORDAN
			01-20	3	32-07		2.8E-11	X.	1.82-08	51 DIZLDRIN
	٠		; ;	ξ	2		7.0E-12	X.	4.5E-09	50 BETA-ENDOSULFA
			.	₹	*		0.02+00	¥	0.02+00	49 BENZOIC ACID
			Ĕ	2	E		0.02+00	×	0.02+00	48 BENZALDEHYDE
			38-11		28-08		2.28-11	X.	1.4E-08	47 ALPHA CHLORDAN
			08+00	*	02+00		0.02+00	XX.	0.02+00	46 ALDRIN
				2	42-09		3.02-11	¥	1.9E-08	45 2,2-BIS (PARA-
				3	62-09		2.8E-11	X	1.82-08	
			11-31	NA.	78-09		3.4E-11	K K	2.2E-08	43 2,2-BIS (PARA-

SUBCHRONIC EXPOSURE SUMMARY

FUTURE RES-ADULT

)					_								
XX.	0E+00	XX.	XX.	KX	A.A.	XX.	0.02+00	0.02+00	3.92-11	0.02+00	3.1E-12	42 PYRENE	
N.	02+00	*	¥.	YH	XX.	X.	0.02+00	0.02+00	0.08+00	0.08+00	0.02+00	41 PEENOL	
K N	02+00	#	¥	XX.	T.	XX.	0.02+00	0.03+00	3.5E-11	0.02+00	2.88-12	40 PHENANTHRENS	
XX.	02+00	¥¥	XX.	A.	AN.	XX.	0.02+00	1.52-19	2.88-12	2.28-22	4.85-13	39 HAPHTHALENE	
X	0E+00	#	XX.	Y.K	XX.	X.N.	0.02+00	0.02+00	1.18-11	0.08+00	- 7.58-13	38 INDENO [1,2,3-	
. AX	02+00	XX.	XX.	. AN	T.	X.	0.02+00	0.02+00	7.78-12	0.05+00	4.88-13	37 FLUORENE	
X.	02+00	XX.	XX.	X.	A.	X.	0.02+00	0.02+00	4.2E-11	0.02+00	2.88-12	36 FLUORANTHENB	
X.	0E+00	Y.	K K	AN	A.N.	AN	0.02+00	0.02+00	0.08+00	0.08+00	V 0.02+00	35 DIBENZ (a,h) A	
X.	02+00	XX.	XX	YN.	NA.	X.	0.02+00	0.0E+00	2.8E-11	0.08+00	1.5E-12	34 CHRYSENE	
X.	2E-05	XX.	KN	YN	XX.	YN.	4.8E-07	0.02+00	2.88-12	0.02+00	E 4.8E-13	33 BIS (2-ETHYLHE	
A.	00+30	X.X	¥.	X.	N.A.	X.	0.02+00	0.02+00	1.88-11	0.02+00	0 1.2E-12	32 BENZO [k] FLUO	
X.	02+00	K.	TH.	X.	W.	X.	0.02+00	0.02+00	9.4E-12	0.08+00	. 6.0E-13	31 BENZO [g,h,i]	
XX	02+00	T.	¥.	KN.	T.	N.	0.02+00	0.02+00	2.45-11	0.02+00	1.25-12	30 BENZO (b) FLUO	
A.A.	02+00	A.A.	K K	A N	¥.	X.	0.02+00	0.05+00	2.28-11	0.02+00	E 1.2E-12	29 BENZO (a) PYRE	
AK	00+30	¥	KK	Y.N	AN	X.	0.02+00	0.02+00	2.88-11	0.02+00	H 3.1E-12	28 BENZO (a) ANTH	
XX.	0E+00	¥	KK.	XX.	XX.	X.	0.02+00	0.02+00	1.38-11	0.02+00	4.82-13	27 ANTERACENE	
X.	08+00	44	¥	Y.	TH.	XX.	0.02+00	0.02+00	1.98-12	0.02+00	4.8E-13	26 ACENAPHTHENE	
X.	XX.	#	X.	Y.	XX.	AN	0.02+00	0.02+00	0.02+00	0.08+00	0.08+00	25 2-METHYLPHENOL	
X	08+00	XX.	XX	X.	XX.	XX.	0.02+00	0.02+00	2.85-12	0.02+00	H 4.8E-13	24 2-METHYLNAPHTH	
K K	02+00	TH.	X.	A.	N.A.	XX.	0.08+00	0.0E+00	0.02+00	0.08+00	3 0.0E+00	23 2,4-DIMBTHYLPH	
X.	02+00	08+00	02+00	02+00	02+00	X.	0.02+00	0.02+00	0.02+00	0.02+00	0.0E+00	22 1,3-DIKETHYLBE	
¥	02+00	08+00	02+00	02+00	00+30	X.		0.02+00	0.02+00	0.02+00	0.02+00	21 1,2-DIMETRYLBE	
X.	2E-07	08+00	1E-10	02+00	18-11	XX.	9.6E-07	5.92-17	1.08-11	8.7E-20	L 8.7E-13	20 XYLENES, TOTAL	
N.	4E-07	00+20	28-11	02+00	22-12	XX.	8.5E-07	1.78-17	1.08-11	2.48-20	8.7E-13	19 TOLUENS	
X.	2E-06	02+00	5 Z-11	02+00	4E-12	X.	8.52-07	1.72-18	1.08-11	2.48-21	L 8.7E-13	18 METHYLISOBUTYL	
Y.	92-07	08+00	3E-11	02+00	3E-12	X.	8.5E-07	4.2E-18	1.08-11	5.98-21	8.75-13	17 STHYLBENZENS	
X.	02+00	00+80	0E+00	02+00	02+00	X.	0.02+00	0.02+00	0.08+00	0.08+00	0.02+00	16 CARBON DISULFI	
N.	XX.	A.	KK.	K K	¥	X.		9.0E-17	1.08-11	1.3E-19	8.7E-13	15 BENZENS	
X.	9E-07	F	K K	K K	X.	X.	8.52-07	1.3E-14	1.0E-11	1.92-17	8.7E-13	14 ACETONE	
X.	3E-03	X.	XX.	X.	X.	N.	2.2E-05	0.02+00	2.48-10	0.05+00	2.2E-11	HUIDANAY ET	
XX	02+00	X.	XX.	X.	XX.	X.		0.02+00	0.08+00	0.02+00	0.02+00	12 TEALLIUM	
¥	00+00	¥	XX	X.	**	A.		0.02+00	0.0B+00	0.02+00	0.02+00	11 SILVER	
X.	XX.	¥	X.	Y.	**	N.		0.02+00	0.02+00	0.02+00	0.02+00	10 NITRITE	
¥	XX	¥	X	XN.	**	A.		0.02+00	0.02+00	0.02+00	0.02+00	9 NITRATE	
X.	· 8E-04	Z.	¥	X.	XX.	AN		0.02+00	6.3E-11	·0.08+00	5.5E-12	8 NICKEL	
×	02+00	08+00	02+00	02+00	02+00	X.		0.02+00	0.08+00	0.02+00	0.02+00	7 MERCURY	
*	1E-03	08+00	58-05	02+00	42-06	N.		0.02+00	2.78-10	0.02+00		_	
¥	A.	¥	¥	A.	X	0.02+00		0.02+00	0.02+00	0.02+00	-		
N.	K	*	*	Z.	,	0.02+00	_	0.02+00	0.08+00	0.08+00	_	4 CADHIUH (FOOD)	
X	28-04	7	¥	¥		X.		0.02+00	1.28-11	0.08+00	1.9E-12	3 BERYLLIUM	
X.	12-03	08+00	1E-06	02+00	1E-07	¥		0.02+00	1.1E-09	0.02+00	1.2E-10	2 BARIUM	
¥.	02+00	¥	¥.	X	X	XX.		0.02+00	0.02+00	0.08+00	0.02+00	1 ARSENIC	
(FROM WS6)	(FROM WS5)	(FROM WS4)	(FROM WS3)	(FROM WS2)	(FROM WS1)	(FROM WS6)	(FROM WSS)	(FROM WS4)	(FROM WS3)	(FROM WS2)	(FROM WS1)	CHEMICAL NAME	
TANKED	ORAL	HOLLYTVENI	HOLLYTVBNI	NOITALABINI	HOLLYTVHNI	DERMAL	ORAL	HOLLVINI	NOITALAHNI	NOITALAHNI	HOLLYTVHNI		
TIOS	TIOS	AIR-VOC	AIR-PART	AIR-VOC	AIR-PART	TIOS	TIOS	AIR-VOC	AIR-PART	AIR-VOC	AIR-PART		
	RESIDENCE	RESIDENCE	PIC. GND		_	RESIDENCE		RESIDENCE	•		CAH-LAKE (F		
SCENARIO 6	SCENARIO 5	SCENARIO 4		SCENARIO 2	SCENARIO 1	SCENARIO 6	SCENARIO 5	SCENARIO 4	SCENARIO 3	SCENARIO 2	SCENARIO 1		
		QUOTIENT	SUBCERONIC EAZARD QU	SUBCERON			<u>ئ</u>	E (mg/kg/day	SUBCERONIC DAILY INTAKE (mg/kg/day)	SUBCHRONIC			

SUBCHRONIC RISK SUMMARY

PUTURE RES-ADULT

SITE NAME: CAMERON STATION OPERABLE UNIT: DISK 1
FILE NAME: POP2
LAST UPDATED: 06/04/92

	•	\$		2-(2,4,5-TRICH 0.0E	2,4-DICHLOROPH 0.0E+00	2,4,5-TRICHLOR 0.0E	PCB 1260 2.5E-	METHOXYCHIOR 0.0E	LINDANE / GAMA 0.0E	HEPTACHLOR EPO 2.5E-	HEPTACHLOR 2.58-	GAMMA-CHLORDAN 0.0E	DIELDRIN 2.5E.	BETA-ENDOSULFA 0.0E	BENZOIC ACID 0.0E	BENZALDEHYDE 0.0E	ALPHA CHLORDAN 0.0E	ALDRIN 0.0E		(PARA-	
	•			_																	
			0.02+00	0.02+00	0.02+00																
			0.02+00	0.02+00	0.02+00	0.05+00	0.02+00	0.02+00	0.02+00	0.02+00	0.08+00	0.08+00	0.02+00	0.02+00	0.08+00	0.02+00	0.08+00	0.02+00	0.02+00	0.02+00	0.02+00
POPULA	PATHWA		0.02+00	5.62-09	2.22-08	4.8E-09	5.2E-07	1.8E-07	0.0E+00	0.02+00	4.22-07	2.6E-07	4.2E-07	1.1E-07	0.02+00	0.0E+00	3.32-07	0.02+00	4.5E-07	4.3E-07	5.2E-07
POPULATION TOTAL	PATHWAY SUH (HI)		YX	X.	KN.	A.A.	1.32-06	X.	XX	¥	XX	YN	X.	¥	¥	XX.	V H	N.	X.	XX	A.
3E-02	42-06	•	02+00	¥	¥	X.	XX	XX	N.	X	¥	¥	¥	¥	XX.	XX	X.	X	X	X	X.
	02+00		0E+00	¥	K	X		¥	¥	¥	¥	XX.	X	¥	¥	×	XX	X	X	¥	AN
	52-05		00+30	X	¥	¥	¥	X	*	X,	X,	A N	XX	X.	XX	N.A.	¥	¥	X	K	X.
	00+00		02+00	X.	X	XX.	X.	KK.	K	¥	Ĕ	¥	¥	XX	¥	¥	XX	X.	×	X.	N.
	3E-02		02+00	7E-07	2E-06	5E-08	NA.	48-05	0E+00	Y.	8E-04	4E-03	8E-03	5E-04	08+00	08+00	6E-03	00+30	X.	K.	1E-03
	0E+00		K.	X.	X.	X.	×	X.	X.	×	X.	X X	X.	K.	K N	AN	N.	XX.	X.	X.	A.N.

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CHRONIC EXPOSURE SUMMARY

PUTURE RES-ADULT

SCENHARIO 3 SCENARIO 4 SCENARIO 5 SCENARIO 3 SCENARIO 4 SCENARIO 5 SCENARIO 5 PIC. GND PIC. G			CHRONIC DAI	n) SYYLNI AT	q/kq/day)				CHRONIC	AZARD OUGTIE	27		
Chi-Alle Chi-Alle Pric, onl Resittence Resitten		SCENARIO 1	SCENARIO 2	SCENARIO 3	SCENARIO 4	SCENARIO 5	SCENARIO 6	SCENARIO 1	ENARIO 2	SCENARIO 3	EMARIO		SCENARIO 6
				PIC. GND	RESIDENCE	RESIDENCE	RESIDENCE	CAM-LAKE (F		_	residence		
		AIR-PART	AIR-VOC	AIR-PART	AIR-VOC	TIOS	TIOS	AIR-PART	AIR-VOC	AIR-PART		TIOS	TIOS
	CUPUTCAT, NAME	MOTTWINE	MOTTWINENT	TNEWTWITTON	NOT TWHAT	OKAL	DERMAL	NOTTATANI	HOLTATION	HOLLYTVHNI			DERHAL
1.22-20 0.0800 1.12-20 0.0800 0.12-20 0.0800	ARSENIC	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	((18 mm)	(K)	(cen none)		(CEN DOS)	(sen mon)
1.200. 1.200. 2.000. 2	2 BARIUM	1.25-10	. 0.08+00	1.1E-09	0.02+00	7.42-05	X	12-06	02+00	12-05	0H+00	12-03	E !
((CODE) C. C. C. C. C. C. C. C	3 BERYLLIUM	1.95-12	0.02+00	1.28-11	0.02+00	1.1E-06	N.	X.	A.	2	4 4	28-04	¥
NY CORRESSION		0.02+00	0.0E+00	0.05+00	0.02+00	0.02+00	0.02+00	Z,	XX	¥	*	02+00	02+00
N 1.22-11 0.02-00 0.02-00 0.27-10 0.02-00 0.02		0.02+00	0.0E+00	0.02+00	0.02+00	0.02+00	0.02+00	K.	. AX	¥	X.	08+00	02+00
C.52-00 C.52	6 CHROMIUM	2.2E-11	0.02+00	2.75-10	0.02+00	2.02-05	YN	4E-05	02+00	52-04	02+00	4E-03	¥
S. S. S. S. S. S. S. S.	7 MERCURY	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	A.	00+30	00+30	00+30	08+00	08+00	¥
Color Colo	NICKEL	5.5E-12	0.0E+00	6.3E-11	0.02+00	1.5E-05	AN	XX.	N N	A.	*	8E-04	¥
Color-101 Colo	9 NITRATE	0.02+00	0.02+00	0.08+00	0.02+00	0.02+00	YN	K.	K.	K K	NA.	02+00	¥
UM C.028400 C	10 NITRITE	0.02+00	0.02+00	0.02+00	0.08+00	0.02+00	X.	X.	A.N.	K K	A.	08+00	X.
UNIT CORPORATION CORPORATION CONTROL CORPORATION CONTROL CONTR	11 SILVER	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	×	X.	K.	X.	XX	02+00	K.
Brain Brai	12 TEALLIUM	0.02+00	0.02+00	0.02+00	0.02+00	0.08+00		X.A.	XX.	TH	¥.	0B+00	¥
E	MUIDANAY E1	2.28-11	0.02+00	2.48-10	0.02+00	2.28-05	X.	XX.	X.	X.	X.	3E-03	K
DISSUERY C.08400 C.0	ACETONE	8.7E-13	1.98-17	1.02-11	1.35-14	8.5E-07	NA.	X.	X.	XX.	4 4	9E-06	¥
ENZENZE 1.0004701 0.085400 0.0	5 BENZENE	8.7E-13	1.3E-19	1.02-11	9.02-17	8.52-07	¥	K.	T.	×	X.	X.	X.
INCREME 6.8-8-1-13 3-98-2-1 1.08-11 1.78-18 8.58-07 NM 48-11 08+00 38-11 08+00 28-06 1	16 CARBON DISULFI	0.02+00	0.02+00	0.08+00	0.02+00	0.02+00	2	00+30	00+30	00+30	02+00	02+00	X
B. B. B. B. B. B. B. B.	17 ETHYLBENZENE	8.75-13	5.92-21	1.08-11	4.25-18	8.58-07	: 5	3E-12	02+00	35-11	08+00	92-06	A.A.
Note	o mornians	78-11	3 45-44	1 08-11	1 70-17	8 5 E E E	:	11,30	000	21-20	01+00	28-00	3
HETETYLZEE 0.02+00 0	O XYLENES, TOTAL	8.7E-13	8.7E-20	1.0E-11	5.92-17	9.62-07	N I	1E-11	02+00	18-10	02400	5R-07	2 3
NETHYLER 0.08+00 0.0	1 1,2-DIMETEYLBE	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	A.	02+00	02+00	02+00	08+00	00+20	E
MATCHINITH 0.08+00 0	12 1,3-DIMETHYLBE	0.05+00	0.0E+00	0.08+00	0.02+00	0.02+00	XN.	0E+00	0E+00	02+00	02+00	02+00	K.
TITIZENCI (0.02+00 0.0	13 2,4-DIMETHYLPH	0.02+00	0.08+00	0.05+00	0.02+00	0.08+00	A.	Y.	X.	¥	KK.	02+00	AN.
THERMENS 1.0.08+00 0.0	4 2-METHYLNAPHTH	4.82-13	0.02+00	2.85-12	0.02+00	0.02+00	X.	¥.	XX.	¥	¥	02+00	AN
CENER 4.8E-13 0.0E+00 0.0E+00 0.0E+00 0.0E+00 NA	TONZHATIHIEM-7 C	0.08+00	0.05+00	0.08+00	0.01+00	0.02+00	. ₹	*	X.	2	¥	02+00	×
[a] ANTE 3.12-12 0.02400 2.22-11 0.02400 0.02400 NA NA NA NA NA O2400 [a] PYRE 1.22-12 0.02400 2.22-11 0.02400 0.02400 NA NA NA NA NA O2400 [g,h,1] 0.02400 2.22-11 0.02400 0.02400 NA NA NA NA NA O2400 [g,h,1] 0.02400 9.42-12 0.02400 0.02400 NA NA NA NA NA NA NA O2400 [h] FLIO 1.22-12 0.02400 1.22-11 0.02400 0.02400 NA NA NA NA NA NA NA O2400 [h] FLIO 1.22-12 0.02400 1.22-11 0.02400 0.02400 NA NA NA NA NA NA NA NA O2400 [h] FLIO 1.22-12 0.02400 0.02400 NA O2400 [h] FLIO 1.22-12 0.02400 1.22-11 0.02400 0.02400 NA NA NA NA NA NA NA NA NA O2400 NA	7 AUTHOLCENE	4.02-13	0.08+00	1.38-11	0.08+00	0.08+00	2 2	.	e X			00+30	. 2
[a] PYRE 1.2E-12 0.0E+00 2.2E-11 0.0E+00 0.0E+00 NA NA NA NA NA NA NA OE+00 [b] FLUO 1.2E-12 0.0E+00 2.4E-11 0.0E+00 0.0E+00 NA NA NA NA NA NA OE+00 [g,h,i] 6.0E-13 0.0E+00 9.4E-12 0.0E+00 0.0E+00 NA NA NA NA NA NA NA OE+00 [g,h,i] 6.0E-13 0.0E+00 1.8E-11 0.0E+00 0.0E+00 NA	28 BENZO (a) ANTE	3.18-12	0.08+00	2.88-11	0.02+00	0.02+00	NA :	¥ 1	¥ 1	¥	ž į	02+00	2 3
[b] FLUO 1.2E-12 0.0E+00 2.4E-11 0.0E+00 0.0E+00 NA NA NA NA 0E+00 (g,b,1) 6.0E-13 0.0E+00 9.4E-12 0.0E+00 0.0E+00 NA NA NA NA 0E+00 (g,b,1) 6.0E-13 0.0E+00 1.8E-11 0.0E+00 0.0E+00 NA NA NA NA 0E+00 (g,b,1) 6.0E-13 0.0E+00 1.8E-11 0.0E+00 0.0E+00 NA NA NA NA 0E+00 (g,b,1) 6.0E-13 0.0E+00 2.8E-12 0.0E+00 0.0E+00 NA NA NA NA NA 0E+00 (g,b) A 0.0E+00 0.0E+00 0.0E+00 NA NA NA NA NA 0E+00 (g,b) A 0.0E+00 0.0E+00 0.0E+00 0.0E+00 NA NA NA NA NA NA 0E+00 (g,b) A 0.0E+00 0.0E+00 0.0E+00 NA NA NA NA NA NA NA NA NA 0E+00 NE-01 0.0E+00 0.0E+00 NA NA NA NA NA NA NA NA NA 0E+00 NE-01 0.0E+00 0.0E+00 NA NA NA NA NA NA NA NA NA 0E+00 NE-01 0.0E+00 0.0E+00 NA NA NA NA NA NA NA 0E+00 NE-01 0.0E+00 0.0E+00 NA NA NA NA NA NA NA NA 0E+00 NE-01 0.0E+00 0.0E+00 NA NA NA NA NA NA NA NA 0E+00 NE-01 0.0E+00 0.0E+00 NA NA NA NA NA NA NA OE+00 NE-01 0.0E+00 0.0E+00 NA NA NA NA NA NA OE+00 NE-01 0.0E+00 0.0E+00 NA NA NA NA NA NA NA NA OE+00 NE-01 0.0E+00 0.0E+00 NA NA NA NA NA NA NA NA OE+00 NE-01 0.0E+00 0.0E+00 NA NA NA NA NA NA OE+00 NE-01 0.0E+00 0.0E+00 NA NA NA NA NA NA NA OE+00 NE-01 0.0E+00 0.0E+00 0.0E+00 NA NA NA NA NA NA NA NA OE+00 NE-01 0.0E+00 0.0E+00 0.0E+00 NA OE+00 NE-01 0.0E+00 0.0E+00 0.0E+00 NA OE+00 NE-01 0.0E+00 0.0E+00 0.0E+00 NA	9 BENZO (a) PYRE	1.28-12	0.02+00	2.2E-11	0.02+00	0.02+00	NA.	KX	X.	A.	¥	02+00	¥ :
[G,h,1] 6.0E-13 0.0E+00 9.4E-12 0.0E+00 0.0E+00 0.0E+00 NA		1.28-12	0.02+00	2.48-11	0.02+00	0.0E+00	N.	KN	YN.	K	K.	02+00	XX.
[k] FLUO 1.2E-12 0.0E+00 1.8E-11 0.0E+00 0.0E+00 NA NA NA NA 0E+00 1.8E-11 0.0E+00 0.0E+00 NA NA NA NA 0E+00 1.8E-12 0.0E+00 0.0E+00 NA NA NA NA NA 0E+00 NA NA NA NA NA 0E+00 NA NA NA NA NA NA OE+00 NA	11 BENZO (g,h,i)	6.02-13	0.02+00	9.4E-12	0.02+00	0.02+00	AN	¥	X	X.	X.	00+30	XX.
-EXHITHE 4-8E-13 0.025-00 2.5E-12 0.025-00 4.8E-07 NA NA NA NA NA 0E+00 1.5E-12 0.025-00 0.025-00 0.025-00 0.025-00 NA NA NA NA NA 0E+00 NTHENS 2.5E-12 0.025-00 0.025-00 0.025-00 NA NA NA NA NA 0E+00 NTHENS 2.5E-13 0.025-00 7.7E-12 0.025-00 0.025-00 NA NA NA NA NA NA 0E+00 NE 11.2,3- 7.5E-13 0.025-00 1.1E-11 0.025-00 NA NA NA NA NA NA NA NA 0E+00 NA	32 BENZO [K] FLUO	1.2E-12	0.02+00	1.8E-11	0.08+00	0.02+00	X	X.	XX.	X.	XX	00+00	X.
[a,b] A 0.02+00 0.02+00 0.02+00 0.02+00 0.02+00 0.02+00 NA	STA (2-EINITHE	4.68-13	0.02+00	21-28.2	0.08+00	4.88-07	×	X.	X.	¥	X.	2E-05	XX
THRENE 2.8E-12 0.0E+00 0.0E+00 0.0E+00 0.0E+00 NA	SE CHRISENS	1.56-14	0.08400	11-30.7	0.00	0.00	. A		. X	¥	*	08+00	×
NE [1,2,3 - 7.5E-13 0.0E+00 7.7E-12 0.0E+00 0.0E+00 NA	A fu'e) every c	2 98-12	0.08400	1 38-11	0.00+00	0.02+00	: X	: X	. X		¥	00+30	¥.
ALERE . 4.8E-13 0.0E+00 0.0E+00 0.0E+00 NA	TIMBENE	4.05-14	0.08400	7.78-12	0.08400	0.08+00	E 3		.	E 3	: Z	02+00	. X
ALERE . 4.8E-13 2.2E-22 2.8E-12 1.5E-19 0.0E+00 NA NA NA NA OE+00 THRENE 2.8E-12 0.0E+00 0.0E+00 0.0E+00 0.0E+00 NA NA NA NA OE+00 0.0E+00 0.0E+00 0.0E+00 NA NA NA NA NA OE+00 3.1E-12 0.0E+00 3.9E-11 0.0E+00 0.0E+00 NA NA NA NA NA NA NA NA NA OE+00	18 INDENO [1.2.3-	7.52-13	0.08+00	1.18-11	0.02+00	0.08+00	¥ ;	5 5	¥ .	£ ;	5 3	00100	5 3
THRENE 2.8E-12 0.0E+00 3.5E-11 0.0E+00 0.0E+00 NA NA NA NA OE+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 NA NA NA NA NA OE+00 3.1E-12 0.0E+00 3.9E-11 0.0E+00 0.0E+00 NA NA NA NA NA NA OE+00	9 NAPHTHALENE	4.8E-13	2.25-22	2.88-12	1.5E-19	0.02+00	X.	¥ į	X	E	¥	08+00	ጅ ;
3.13-12 0.02+00 0.02+00 0.02+00 0.02+00 NA NA NA NA NA 02+00	10 PHENANTHRENE	2.85-12	0.02+00	3.5E-11	0.02+00	0.02+00	KK	X H	KK	KN.	ž	08+00	¥
3:13-12 0:02+00 3:9E-11 0:0E+00 0:0E+00 NA NA NA NA NA NA	11 PHENOL	0.08+00	0.02+00	0.02+00	0.02+00	0.02+00	K N	A.N.	*	X.	X.	02+00	A.A.
	12 PYRENE	3.18-12	0.02400	3.98-11	0.02+00	0.02+00	ž	N.	A.	ž	A.A.	00+30) _¥

54 j. i.

CHRONIC RISK SUPPLARY

FUTURE RES-ADULT

LAST UPDATED: 06/04/92

SITE NAME: CAMERON STATION OPERABLE UNIT: DISK 1
FILE NAME: POP2

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	43 2,2-BIS (PARA- 44 2,2-BIS (PARA- 45 2,2-BIS (PARA- 45 2,2-BIS (PARA- 46 ALDRIN 47 ALPHA CHLORDAN 48 BENIALDEHYDE 49 BENIALDEHYDE 50 BETA-ENDOSULFA 51 DIELDRIN 52 GAMMA-CHLORDAN 53 HEPTACHLOR EPO 55 LINDANE / GAMA 56 HERTROXYCHLOR 57 PCB 1260 59 2,4,5-TRICHLORDFE 60 2-(2,4,5-TRICH 61 TRICHLOROPIUOR
	2.5E-12 2.5E-12 2.5E-12 0.0E+00 0.0E+00 0.0E+00 0.0E+00 2.5E-12 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00
	0.000000000000000000000000000000000000
	1.4E-11 1.4E-11 1.4E-11 1.4E-11 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00
	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
PATH	4.322-07 4.322-07 4.322-07 0.032-07 0.032-07 0.032-07 0.032-07 0.032-07 0.032-07 0.032-07 0.032-07 0.032-07 0.032-07 0.032-07 0.032-07
PATHWAY SUH (HI)	HA H
4E-05 3E-02	000-00 44 44 44 44 44 44 44 44 44
0E+00	02+00 02+00
5 ₽ - 0 4	00-00 W W W W W W W W W W W W W W W W W W W
0 H + 0 0	00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
3E-02	1E-03 0R+00
0E+00	* * * * * * * * * * * * * * * * * * * *

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LIFETIME EXPOSURE SUMMARY

res-adult

SILVER HITRITE NITRATE NICKEL CHRONIUM CADMIUM (FOOD) MERCURY ARSENIC CHEMICAL NAME BERYLLIUM BARIUM (FRON WS1) SCENARIO 1 SCENARIO 2 SCENARIO CAM-LAKE (F CAM-LAKE (F PIC. GND AIR-PART HOLLYTABAL 0.08+00 0.08+00 9.28-12 0.08+00 0.02+00 0.05+00 0.02+00 0.08+00 5.08-11 2.35-12 (FRON WS2) NOITALAHI LIFETIME AVERAGE DAILY INTAKE (mg/kg/day) SCENARIO 3 SCENARIO 4 SCENA 0.02+00 0.02+0 (FRON WS3) NOITALIANI 2.6E-11 0.0E+00 0.02+00 0.0E+00 0.08+00 0.05+00 4.9E-12 4.6E-10 0.02+00 1.15-10 (PROM WS4) NOITALIANI AIR-VOC RESIDENCE 0.02+00 0.05+00 0.0E+00 0.02+00 0.0E+00 0.08+00 0.02+00 0.02+00 0.0E+00 OR.L RESIDENCE (FROM WS5) TIOS SCENARIO 5 6.6E-06 3.2E-05 4.8E-07 0.0E+00 0.0E+00 0.02+00 0.02+00 0.0E+00 8.7E-06 0.0E+00 TIOS RESIDENCE DERWAL SCENARIO 6 (FROH WS6) AN AN 0.02+00 0.00+00 SCENARIO 1 SCENARIO 2 SCENARIO CAM-LAKE (F CAM-LAKE (F PIC. GND AIR-PART AIR-VOC NOITALANI NOITALANI (FROM WS1) 42-10 02+00 00+30 7E-12 0E+00 ***** (FROM WS2) 02+00 0E+00 02+00 00+30 ROLLVIVENI (FROM WS3) 5E-09 4B-11 0B+00 08+00 02+00 CANCER RISK (FRON WS4) **RESIDENCE** SCENARIO NOITALIANI AIR-VOC 02+00 TN 00+30 08+00 ORAL. TIOS (FROH WS5) RESIDENCE SCENARIO 5 2E-06 02+00 (FROM WS6) TIOS RESIDENCE SCENARIO DERMAL

THALLIUM VANADIUM

BENZENS

9.18-12 3.78-13 3.78-13 0.08+00

0.02+00

0.02+00 9.82-11 4.22-12

0.02+00 0.08+00 5.52-15

9.82-00

3.98-17

3.7E-07 3.7E-07

WN 00+80

02+00

12-08

STHYLBENZENE CARBON DISULFI

3.78-13

3.75-13 3.78-13

4.28-12 4.28-12 4.28-12 0.02+00 4.28-12

> 1.82-18 0.0E+00

> 0.0E+00 3.7E-07

7.15-19

7.1E-18

3.7E-07 3.72-07

XYLENES, TOTAL TOLUENE TALRESTIABLEM

BENZO [g,h,i]

2.58-13 5.28-13 2.08-13 6.58-13 0.08+00

0.02+00

3.98-12 7.7E-12 1.2E-12 1.2E-11

0.02+00

0.02+00 0.02+00 0.02+00 0.02+00 2.12-07

0.02+00

0.0E+00

BENZO (b) FLUO BENZO [.] ANTE ACENAPHTHENE

5.28-13 1.38-12

0.02+00 0.02+00

9.98-12

0.02+00

0.02+00 0.02+00

0.02+00

02+00 3E-09 0E+00

02+00 02+00

9.28-12 5.5E-12 0.02+00

1.28-11

5.2E-13

0.02+00

BENZO (a) PYRE

ANTHRACENE 2-METHYLPHENOL

2.0E-13 2.0E-13

3.78-12

0.02+00 0.0E+00

0.02+00 0.02+00 0.02+00 0.02+00

1.28-12

0.0E+00

0.01+00

2-METHYLNAPHTH 1,4-dimethylph , 3-DIMETHYLBS ,2-DIMETHYLBE

3.78-13 0.08+00 0.08+00 0.08+00 2.08-13

4.28-12 0.08+00 0.08+00 0.08+00

2.5E-17 0.0E+00 0.0E+00 0.0E+00

4.2E-07 0.0E+00 0.0E+00

DIBENS (a,h) A CHRYSENE BIS (2-ETHYLHE

INDENO [1,2,3-

2.08-13

3.25-13 1.2E-12

0.08+00 0.08+00 0.08+00 9.28-23

0.08+00 1.88-11 3.28-12 4.78-12 1.28-13

0.02+00 0.02+00 0.02+00 0.03+00

0.02+00 0.02+00 0.02+00

0.08+00

PYRENE

TONIBLE PHENANTHRENE HAPHTHALENS FLUORENE . **FLUORANTHENS**

0.0E+00 1.3E-12 2.0E-13 1.2E-12

0.0E+00 0.05+00

1.4E-11 0.0E+00 1.6E-11

0.08+00 0.0E+00

0.02+00

0.0E+00 6.6E-20

0.0E+00 0.0E+00 0.0E+00

0.05+00

FUTURE

res-adult

LIPETINE RISK SUMMARY

SITE NAME: CAMERON STATION OPERABLE UNIT: DISK 1
FILE NAME: POP2 LAST UPDATED: 06/04/92

				61 TRICHLOROFLUOR	60 2-(2,4,5-TRICH	59 2,4-DICHLOROPH	58 2,4,5-TRICHLOR	57 PCB 1260	56 METHOXYCHLOR	55 LINDANE / GAMA	54 HEPTACHLOR EPO	53 EEPTACHLOR	52 GAMMA-CELORDAN	51 DIELDRIN	50 BETA-ENDOSULFA	49 BENZOIC ACID	48 BENZALDEHYDE	47 ALPHA CHLORDAN	46 ALDRIN	45 2,2-BIS (PARA-	44 2,2-BIS (PARA-	_
				0.02+00	0.0E+00	0.02+00	0.02+00	1.02-12	0.02+00	0.02+00	1.0E-12	1.0E-12	0.02+00	1.02-12	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	1.0E-12	1.0E-12	1.0E-12
				0.05+00	0.08+00	0.05+00	0.02+00	0.02+00	0.08+00	0.02+00	0.05+00	0.02+00	0.02+00	0.08+00	0.02+00	0.0E+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00
				0.02+00	0.02+00	0.02+00	0.02+00	6.0E-12	0.02+00	0.02+00	6.0E-12	6.0E-12	0.03+00	6.0E-12	0.02+00	0.02+00	0.05+00	0.05+00	0.02+00	6.0E-12	6.0E-12	6.0E-12
			;	0.02+00	0.02+00	0.08+00	0.02+00	0.02+00	0.08+00	0.02+00	0.05+00	0.02+00	0.02+00	0.08+00	0.02+00	0.08+00	0.02+00	0.02+00	0.02+00	0.03+00	0.02+00	0.02+00
. CECTIVITION TO		TOTAL PATH	;	0.02+00	2.4E-09	9.52:09	2.1E-09	2.3E-07	7.8E-08	0.02+00	0.02+00	1.8E-07	1.22-07	1.9E-07	4.7E-08	0.02+00	0.02+00	1.5E-07	0.02+00	2.02-07	1.98-07	2.3E-07
LOLOTATION TOTAL EXCESS KISK		TOTAL PATHWAY CANCER RISK	;	z	X.	. As	A.V.	5.7E-07	N	K.	¥	K N	X.	¥	A.N.	A.N.	XX.	¥	K.	¥.	N.A.	XX.
16-63	i	42-10	į	¥	X	X.	K	X.	¥	¥	9E-12	5E-12	02+00	2E-11	¥	×	¥	02+00	00+30	K	X.	00+00
		02+00	;	ž	K	K.	KK.	KK	X.	¥.	02+00	02+00	02+00	02+00	XX.	KN.	¥	02+00	02+00	æ	XX.	00+20
		58-09	į		¥	¥	K.	¥	K K	KK KK	58-11	35-11	05+00	1E-10	¥	Z	K	00+80	0Z+0 0	¥	¥	28-12
		08+00	1	E	¥	XX,	¥	¥	¥	¥	08+00	05+00	00+80	0B+00	Z	KK.	X	0 E +00	0E+00	K.	X.	00+00
		8E-06	1	¥	XX.	¥	K N	22-06	X.	02+00	02+00	8E-07	15-07	3E-06	X.	XX.	¥	2E-07	0E+00	5E-08	80-39	8E-08
		4E-06	į	£	¥	¥	K.	€E-06	¥	¥.	¥	¥	¥	¥	¥	K.	¥	¥	¥	¥	¥	×

SUBCHRONIC EXPOSURE SUMMARY

REC. ADULT

NITRATE
NITRITE
SILVER
TEALLIUM
VANADIUM **STRYLBENZENE** ACETONE DIBENZ [a,h] A TALDROSITABLEM CARBON DISULPI BENZENE PYRENE PHENANTHRENE BHETALENE INDENO [1,2,3-FLUORENE FLUORANTHENE CHRYSENE BIS (2-ETHYLHE BENZO [k] FLUO BENZO [g,h,1] BENZO [a] PYRE BENZO [b] FLUO BENZO [a] ANTE ANTERACENE ACENAPHTHENE 2-METHYLPHENOL 2-METHYLNAPHTH 2,4-DIMETHYLPH 1,3-DIMETRYLBE 1,2-DIMETHYLBE XYLENES, TOTAL TOLUENE HICKEL CHROMIUM CADHIUN CADMIUM (FOOD) BARIUM HERCURY BERYLLIUM ARSENIC CHEMICAL NAME (WATER (FROM WS1) CAM-LAKE (C CAM-LAKE (C PIC. GND AIR-PART NOITALANI SCENARIO 1 0.08+00 4.88-13 4.88-13 3.18-13 1.28-12 1.28-12 1.28-12 1.28-13 1.28-13 1.58-13 8.72-13 8.72-13 8.72-13 8.72-13 0.02+00 1.22-10 1.92-12 0.02+00 2.8E-12 4.8E-13 7.5E-13 4.8E-13 2.8E-12 0.0E+00 3.1E-12 0.02+00 0.08+00 0.08+00 0.08+00 2.28-11 0.02+00 8.7E-13 2.2E-11 4.88-13 0.05+00 0.02+00 8.7E-13 5.5E-12 0.02+00 0.02+00 (FROM WS2)
0.0E+00
0.0E+00
0.0E+00 SCENARIO 2 HOLLYTVANI AIR-VOC SUBCHRONIC DAILY INTAKE (mg/kg/day) 0.02+00 0.02+00 0.02+00 0.02+00 2.22-23 0.02+00 0.02+00 0.02+00 0.02+00 0.02+00 0.02+00 0.02+00 0.02+00 0.02+00 0.02+00 2.4E-21 8.4E-21 0.0E+00 0.0E+00 5.9E-22 2.4E-22 0.02+00 0.02+00 0.02+00 1.3E-20 0.02+00 0.02+00 0.0E+00 0.0E+00 0.02+00 1.8E-18 0.02+00 0.02+00 0.08+00 (FROM WS3) NOITALION AIR-PART 0.02+00 4.22-11 7.72-12 1.15-11 2.88-12 3.55-11 1.0E-11 1.0E-11 1.0E-11 0.02+00 0.02+00 0.02+00 0.02+00 2.42-10 1.02-11 0.0E+00 1.1E-09 1.2E-11 0.02+00 2.8E-11 0.08+00 0.0E+00 6.3E-11 0.02+00 2.72-10 0.02+00 0.08+00 (PROH WS4) NOITALIANI AIR-PART BALL PIELD 1.3E-11 2.5E-11 3.8E-12 3.9E-11 3.9E-11 1.1E-11 1.6E-11 1.6E-11 1.6E-11 1.6E-11 1.6E-11 3.8E-12 0.0E+00 1.2E-11 1.8E-11 3.9E-11 8.7E-11 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 1.5E-09 3.38-11 0.02+00 1.4E-11 1.4E-11 1.4E-11 1.4E-11 0.0E+00 0.02+00 0.0E+00 0.0E+00 1.6E-11 3.2E-10 0.02+00 3.7E-10 1.4E-11 (FROM WS5) SCENARIO 5 0.0E+00 SCENARIO 6 (FROM WS6) 0.02+00 00 CAH-LAKE (C CAH-LAKE (C PIC. GND (FROM WS1) AIR-PART AIR-VOC AIR-PART INHALATION INHALATION AIR-PART SCENARIO 1 SCENARIO 2 SCENARIO 3 0E+00 3E-12 4E-12 2E-12 1E-11 0E+00 0E+00 00+30 1E-07 (FROH WS2) SUBCHRONIC HAZARD QUOTIENT 02+00 02+00 02+00 02+00 0E+00 02+00 0E+00 02+00 0E+00 ****** (FROM WS3) 08+00 3E-11 0B+00 02+00 28-11 5E-11 5B-05 1E-06 1E-10 ***** NOITALANI (FRON WS4) TITLE TIME AIR-PART SCENARIO 4 NA 02+00 0E+00 2E-10 2E-11 7E-11 6E-05 2E-06 (FROM WS5) SCENARIO 02+00 (FROH WS6) SCENARIO 02+00

SUBCHRONIC RISK SUMMARY

CURRENT

REC. ADULT

 $\rho = \frac{1}{4} p$

LAST UPDATED: 06/04/92

SITE NAME: CAMERON STATION
OPERABLE UNIT: DISK 1
FILE NAME: POP3

	0.08+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.0E+00
	0.02+00	0.0E+00	0.02+00	0.02+00	1.42-11	0.02+00	0.0E+00	1.4E-11	1.42-11	0.02+00	1.4E-11	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	1.4E-11	1.4E-11	1.4E-11
	0.00+00	0.02+00	0.02+00	0.02+00	2.02-11	0.02+00	0.02+00	2.02-11	2.0E-11	0.02+00	2.08-11	0.02+00	0.02+00	0.0E+00	0.02+00	0.02+00	2.02-11	2.02-11	2.0E-11
POPULATION TOTAL																			
1E - 06	* 0E+00	X.	¥	K.	XX.	¥	K.	XX.	X.	¥	X.	¥	¥	×	X.	N.	¥	¥	X.
00	00+00	K.	¥	¥	X.	¥	KN	X.	¥	¥	K	¥	¥	K	K	¥	KK	K.	X
58 - 03	02+00	*	¥	¥	ž	¥	¥	¥	¥	£	ž	¥	¥	K	Ę	¥	¥	£	X.
95																			
68-05		¥	¥	¥	¥	¥	¥	¥	¥	¥.	¥	¥	K.	Z.	₹,	¥	¥	¥	K

43 2,2-BIS (PARA44 2,2-BIS (PARA45 2,2-BIS (PARA46 ALDRIN
47 ALPHA CHLORDAN
48 BENZALDEHYDE
49 BENZOL ACID
50 BETA-ENDOSULFA
51 DIELDRIN
52 GAMMA-CHLORDAN
53 HEPTACHLOR EPO
55 LINDAME / GAMA
56 METHOXICHLOR
57 PCB 1260
58 2,4,5-TRICHLOROPH
60 2-(2,4,5-TRICH
61 TRICHLOROPLUOR

2.5E-12 2.5B-12 2.5B-12 2.5B-12 2.5B-12 2.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 2.5E-12 2.5E-12

02+00

CHRONIC EXPOSURE SUMMARY

CURRENT REC, ADULT

		×	¥	X.	, a	·		5.4E-11	3.98-11	0.05+00	3.15-12	42 PYRENE
		2	*	*					_		0.02+00	41 PHENOL
	•	X	2						_		2.85-12	40 PERMITERENS
		T.	XX.		*				_		4.85-13	39 NAPHTHALENE
		X.	T.N.		A.A.				_	0.08+00	7.58-13	38 INDENO [1,2,3-
		MA.	X.		×			1.1E-11	7.78-12	_	4.8E-13	37 FLUORENE
		X.	X.		*				4.28-11		2.82-12	36 FLUORANTHENE
		A.M.	XX.	A.N.	KN KN				0.02+00		0.05+00	35 DIBENZ [a,h] A
		A.	X.	AN	KK.		·	3.9E-11	2.88-11	0.08+00	1.5E-12	34 CERYSENS
		*	XX.	A.K	AN AN				2.88-12	-	4.88-13	33 BIS (2-ETHYLHE
		*	×	. AIN	XX.			2.5E-11	1.88-11	0.08+00	1.28-12	32 BENZO [k] FLUO
		. AN	X.	ALK.	K.			1.3E-11	9.48-12	0.08+00	6.08-13	31 BENZO [g,h,i]
		T.	X.	YN	KN			3.3E-11	2.4B-11	0.08+00	1.25-12	OUTH [4] OZNSE OF
		T.	X.	YK	K.		•	3.0E-11	2.28-11	0.08+00	1.28-12	29 BENZO (a) PYRE
		**	·	A.N.	2			3.9E-11	2.88-11	0.02+00	3.18-12	28 BENZO (a) ANTH
•		TH.	X.		K			1.8E-11	1.38-11		4.82-13	27 ANTHRACENS
		*	XX.	A.A.	XX.			1.2E-11	9.9E-12	0.08+00	4.8E-13	26 ACENAPHTHENE
		THE STATE OF THE S	X.	Y.	X.N			0.02+00	0.08+00	0.08+00	0.02+00	25 2-METHYLPHENOL
		XX.	X.	, AN	X.			3.8E-12) 2.8E-12	0.02+00	4.88-13	24 2-METHYLMAPHTH
		TH.	YK	Y.	XX.			0.02+00	0.08+00	0.08+00	0.02+00	23 2,4-DIMETHYLPH
		08+00	02+00	02+00	02+00			0.02+00	0.08+00	0.08+00	0.02+00	22 .1,3-DIMSTHYLBS
		02+00	02+00	02+00	08+00			0.02+00	0.08+00	0.02+00	0.05+00	21 1,2-DIMETHYLBE
•		28-10	18-10	02+00	1E-11			1.4E-11	1.02-11	8.4E-21	0.7E-13	20 XYLENES, TOTAL
•		25-11	28-11	. 02+00	2E-12			1.4E-11	1.08-11	2.48-21	8.7E-13	19 TOLUENE
		78-10	5E-10	02+00	4E-11			1.4E-11	1.08-11	2.48-22	8.7E-13	TALINGOSITABLEM 81
		58-11	3E-11	08+00	3E-12			1.4E-11	1.08-11	5.98-22	8.75-13	17 STHYLBENZENS
		02+00	02+00	02+00	02+00			0.02+00		0.08+00	0.02+00	16 CARBON DISULFI
		TH.	X.	. AH	X			1.4E-11	1.05-11	1.38-20	8.7E-13	15 BENZENS
		**	¥	, AN	A.S.			1.42-11	1.02-11	1.88-18	8.72-13	14 ACETONE
		W.	×		X.			3.2E-10	2.48-10	0.08+00	2.22-11	HOLDWAYA EL
		TX.	X.A	גא	*			0.02+00	0.08+00	0.08+00	0.02+00	12 THALLIUM
		*	×	, AM	X.			0.02+00	0.08+00	0.02+00	0.02+00	11 SILVER
		*	X.	, AN	X.			0.02+00	0.08+00	0.08+00	0.02+00	10 NITRITE
		**	**	, AM	**			0.02+00	0.08+00	0.02+00	0.02+00	9 NITRATE
		T.	×	Y.	KN.			8.7E-11) '6.3E-11	0.08+00	5.5E-12	8 NICKEL
		02+00	02+00	08+00	02+00			0.02+00	0.05+00	0.02+00	0.02+00	7 HERCURY
		-29	58-04	08+00	4E-05			3.7E-10		0.02+00	2.2E-11	6 CHROHIUM
		¥.	X.	XX.	K.			0.02+00		0.02+00	0.02+00	S CADMIUM (WATER
			¥	A.K	K.					0.02+00	0.02+00	4 CADMIUM (FOOD)
			¥	XX.	*			1.6E-11	1.2E-11	0.08+00	1.9E-12	3 BERYLLIUM
		2E-	1E-05	08+00	1E-06			1.52-09	1.18-09	0.02+00	1.22-10	2 BARIUM
Ŭ	02+00		ž	•	*	0.0E+00		0.02+00	0.08+00	0.02+00	0.08+00	1 ARSENIC
(FROM WS6	(FROM WS5)	(PROM WS4)	(FROM WS3)	(PROM WS2)	(FROM WS1)	(FROM WS6)	(FROM WS5)	(FROH WS4)	(PRON WS3)	(FROM WS2)	(FROM WS1)	CHEMICAL NAME
•		NOLLVIVENT	NOITALABNI		NOITALANI	0	0	NOITALIANI	NOITALATION	HOLLVIVANI	NOITALIANI	
		AIR-PART	AIR-PART	AIR-VOC		•		AIR-PART	AIR-PART		AIR-PART	
		BALL FIELD	PIC. GND	(C CAH-LAKE (C		0		BALL FIELD	C PIC. GND	C CAM-LAKE (C PIC. GND	CYM-TYKE (C	
5 SCENARIO 6	SCENARIO 5	SCENARIO 4	SCENARIO 3	SCENARIO 2	SCENARIO 1	SCENARIO 6	SCENARIO 5	SCENARIO 4	SCENARIO 3	SCENARIO 2	SCENARIO 1	
		TRNT	CHRONIC HAZARD QUOTIENT	CHRONIC				mg/kg/day)	CHRONIC DAILY INTAKE (mg/kg/day)	CHRONIC DA		

CERONIC RISK SUMMARY

CURRENT REC. ADULT

SITE NAME: CAMERON STATION
OPERABLE UNIT: DISK 1
FILE NAME: POP3
LAST UPDATED: 06/04/92

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			55 LINDANE / GAMA 56 METHOXYCHLOR 57 PCB 1260 58 2,4,5-TRICHLOR 59 2,4-DICHLOROPH 60 2-[2,4,5-TRICH 61 TRICHLOROFILOR		43 2,2-BIS (PARA- 44 2,2-BIS (PARA- 45 2,2-BIS (PARA- 45 ALDRIN 47 ALDRIN
			0.08+00 0.08+00 0.08+00 0.08+00 0.08+00 0.08+00 0.08+00	N N O O O O O O O O O O O O O O O O O O	2.5E-12 2.5E-12 2.5E-12 0.0E+00
•			0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0		0.02+00 0.02+00 0.02+00
	<u>.</u> 1 1		0.08+00 0.08+00 0.08+00 0.08+00 0.08+00 0.08+00	0.000 0.000	1.4E-11 1.4E-11 1.4E-11 0.0E-00
			0.02+00 0.02+00 0.02+00 0.02+11 0.02+00 0.02+00 0.02+00	2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2.08-11 2.08-11 2.08-11 2.08-11
		PATHWAY SUM (HI)			•
		42-05 12-03	OE+OO NA NA NA NA NA NA NA NA NA NA NA NA NA		
		08+00	VA V	=	:
		SE-04	00+20 VN VN VN VN	* * * * * * *	a a a a a a a a a a a a a a a a a a a
		6E-04	OZ+OO	*******	:
		02+00			

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LAST UPDATED: 06/04/92

LIFETIME EXPOSURE SUMMARY

CURRENT

CURRENT REC. ADULT

0E+00

*...

LIFETIME RISK SUMMARY

REC. ADULT

5 TALIBOSITABLE 81 4 ACETONE 5 BENZENE 6 CARBON DISULFI HUIDANAV NITRITE MERCURY NICKEL BIS (2-ETHYLHE **ETHYLBENZENE** HULLIART BENZO [g,h,i] 1,2-DIHETHYLBE 1,3-DIHETHYLBE SILVER PYRENE PHENOL FLUORENE FLUORANTHENS DIBENZ [a,h] A CHRYSENE BENZO [b] FLUO BENZO [a] PYRE BENZO [a] ANTH ANTHRACENS 2-METHYLPHENOL XYLENES, TOTAL TOLUENS NITRATE CADMIUM (WATER CADMIUM (FOOD) PHENANTHRENE MAPHTHALENE INDENO (1,2,3-ACENAPHTHENE 2-HETHYLNAPHTH 2,4-DIMETHYLPH CHROMIUM BERYLLIUM BARIUM ARSENIC CHEMICAL NAME AIR-PART (PROH WS1) INEXLATION SCENARIO 1 SCENARIO 2 SCENARIO 3 2.0E-13 6.5E-13 0.0E+00 1.2E-12 0.0E+00 0.0E+00 2.0E-13 9.2E-12 0.0E+00 2.3E-12 5.2E-13 5.2E-13 3.7E-13 3.7E-13 3.78-13 5.2E-13 0.02+00 0.0E+00 0.02+00 0.02+00 0.02+00 0.05+00 0.02+00 0.08+00 0.0E+00 5.0E-11 0.02+00 1.3E-12 0.02+00 1.2E-12 2.0E-13 3.2E-13 2.0E-1 2.5B-13 1.3E-12 2.0E-13 2.0E-13 3.7E-13 3.7E-13 3.72-13 9.1E-12 8.1E-13 CAM-LAKE (C PIC. GND AIR-POC AIR-PART (FROM WS2) INHALATION LIFETIME AVERAGE DAILY INTAKE (mg/kg/day) 0.02+00 0.0E+00 0.02+00 0.02+00 0.02+00 0.02+00 0.02+00 9.9E-23 9.9E-22 3.5E-21 7.7E-19 5.3E-21 0.0E+00 0.0E+00 0.02+00 0.0E+00 0.02+00 0.02+00 0.0E+00 0.08+00 0.02+00 0.02+00 0.0E+00 0.08+00 2.5E-22 0.0E+00 0.02+00 0.02+00 0.02+00 0.02+00 0.0E+00 0.02+00 0.0E+00 HOLLYTYRNI (FROM WS3) 1.1E-10 0.0E+00 2.6E-11 0.0E+00 0.0E+00 0.0E+00 1.2E-12 0.0E+00 9.8E-11 4.2E-12 4.2E-12 0.0E+00 1.2E-11 0.0E+00 1.8E-11 4.7E-12 5.5E-12 4.2E-12 0.02+00 0.0E+00 0.02+00 4.6E-10 4.9E-12 0.0E+0C 1.2E-12 3.9E-12 9.98-12 9.2E-12 1.2E-11 3.72-12 4.28-12 4.2E-12 4.2E-12 0.02+00 0.0E+00 0.0E+00 0.02+00 1.48-11 1.28-12 3.2E-12 7.78-12 SCENARIO 4 (FRON WS4) NOITALABNI AIR-PART BALL FIELD 0.0E+00 6.0E-12 6.0E-12 6.0E-12 6.0E-12 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+012 7.8E-12 1.4E-10 6.0E-12 6.0E-12 0.0E+00 2.3E-11 0.02+00 0.0E+00 1.6E-10 0.0E+00 3.7E-11 0.0E+00 2.5E-11 1.1E-11 1.6E-12 1.7E-11 1.7E-11 1.3E-11 0.02+00 2.1E-11 4.5E-12 5.6E-12 0.02+00 0.0E+00 0.02+00 6.9E-12 6.6E-10 1.6E-12 1.4E-11 (PROM WSS) SCENARIO 0.02+00 (FROM WS6) SCENARIO 6 0.02+00 SCENARIO 1 SCENARIO 2 SCENARIO CAM-LAKE (C CAM-LAKE (C PIC. GND AIR-PART AIR-VOC AIR-PART NOITALIANI (FROM WS1) 0E+00 0E+00 4E-10 0E+00 7E-12 * * * (FROM WS2) LIFETIME EXCESS CANCER RISK SCENARIO 2 SCENARIO 3 SCENARIO NOITALABNI NOITALABNI 02+00 02+00 02+00 0E+00 0E+00 0E+00 (FROH WS3) SCENARIO 3 4E-11 0E+00 0E+00 5E-09 0E+00 (FROM WS4) NOITALIANI AIR-PART BALL FIELD 0E+00 6E-11 0E+00 0E+00 7E-09 0E+00 (PROM WS5) SCENARIO 02+00 v SCENARIO (FROH WS6)

,2-BIS (PARA-	1.0E-12	0.02+00	6.0E-12	8.5E-12		00+30	0E+00	2E-12	3E-12	
,2-BIS (PARA-	1.0E-12	0.02+00	6.0E-12	8.5E-12		¥	¥	¥	¥	
,2-BIS (PARA-	1.0E-12	0.02+00	6.02-12	8.52-12		¥	¥	¥	¥	
LDRIN	0.0E+00	0.02+00	0.05+00	0.08+00		00+30	0E+00	0R+00	0R+00	
LPHA CHLORDAN	0.02+00	0.08+00	0.02+00	0.02+00		00+00	00+30	00+20	02+00	
enzaldehyde	0.02+00	0.02+00	0.02+00	0.08+00		E	¥.	E	X.	
ENZOIC ACID	0.02+00	0.0E+00	0.02+00	0.02+00		X	N.	3	ž	
STA-ENDOSULPA	0.02+00	0.02+00	0.05+00	0.02+00		K	, X	ş	¥	
IBLDRIN	1.02-12	0.02+00	6.0E-12	8.5E-12		2E-11	02+00	1E-10	1E-10	
ANNA-CHILORDAN	0.08+00	0.02+00	0.02+00	0.08+00		02+00	08+00	00+30	02+00	
EPTACHLOR	1.08-12	0.02+00	6.0E-12	8.58-12		5E-12	00+30	3E-11	4B-11	
EPTACHIOR EPO	1.0E-12	0.02+00	6.0E-12	8.5E-12		9E-12	00+30	58-11	8E-11	
INDANS / GAMA	0.02+00	0.02+00	0.02+00	0.08+00		¥	×	¥	¥	
ETHOXYCHLOR	0.02+00	0.02+00	0.02+00	0.02+00		¥	¥	¥	¥	
CB 1260	1.02-12	0.02+00	6.0E-12	8.5E-12		¥	X	¥	X.	
4,5-TRICHLOR	0.05+00	0.02+00	0.02+00	0.02+00		X.	YN.	¥	X.	
, 4-DICHLOROPH	0.02+00	0.08+00	0.02+00	0.02+00		¥	¥	Ĕ	¥	
-(2,4,5-TRICH	0.02+00	0.02+00	0.02+00	0.02+00		¥	×	¥	¥	
RICHLOROFLUOR	0.02+00	0.02+00	0.02+00	0.02+00		X,	X	¥	KK	
•										
:					TOTAL PATHWAY CANCER RISK	4E-10	02+00	5E-09	7 Z -09	8

0E+00

POPULATION TOTAL EXCESS RISK

12-08

SUBCERONIC EXPOSURE SUMMARY

RES-ADULT (B)

			N	_							
CADHIUM (WATER	CADMIUM (FOOD)	BERYLLIUM	BARIUM	ARSENIC	CHEMICAL NAME						
0.02+00	0.02+00	0.02+00	0.02+00	0.0E+00	(FROM WS1)	ORAL	TIOS	LES	-		
0.02+00	0.02+00	N.	K	¥	(PROM WS2)		TIOS	PCB POLES	N	10	
				0.02+00	(FROM WS3)	0	0	0	SCENARIO 3		
				0.02+00	(FRON WS4)	0	0	0	SCENARIO 4	(mg/kg/day)	
				0.02+00	(FROM WS5)	0	•	•	SCENARIO 5		
				0.02+00	(FROM WS6)	0	0	0	SCENARIO 6		
YN.	XX.	. * 0E+00	0E+00	02+00	(PRON WS1)	ORAL	TIOS	PCB POLES	SCENARIO 1		
XX.	XX.		¥.	K.	(FROH WS2)	DERMAL	TIOS	PCB POLES	SCENARIO 2	SUBCERON	
				02+00	(FROM WS3)	•	0	•	SCENARIO 3	UBCHRONIC HAZARD QUOTIENT	
				0E+00	(FROM WS4)	0	•	0	SCENARIO 3 SCENARIO 4 SCENARIO 5 SCENARI	OTIENT	•
				00+30	(FROM WS5)	0	0	0	SCENARIO 5		
				02+0	(FROM WS6				SCENARIO		

RES-ADULT (B) PUTURE SUBCHRONIC RISK SUMMARY

SITE NAME: CAMERON STATION
OPERABLE UNIT: DISK 1
FILE NAME: POP4
LAST UPDATED: 06/04/92

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8 BENZO [a] ANTH
9 BENZO [a] PYRE
0 BENZO [b] FLUO
1 BENZO [g,b,i]
2 BENZO [k] FLUO

ACENAPHTHENE ANTHRACENE 2-METHYLPHENOL 2-METHYLNAPHTH

PHENANTERENE PHENANTERENE

FLUORANTHENS DIBENZ (a,h) A CHRYSENE BIS (2-ETHYLHE

FLUORENS INDENO [1,2,3-

PYRENE

PHENOL

9 TOLUENE 0 XYLENES, TOTAL 1 1,2-DIMETHYLBE 2 1,3-DIMETHYLBE 3 2,4-DIMETHYLBE

TALIBOSITABLEM **ETHYLBENZENS**

MICKEL
MITRATE

CHRONIUM

0.02+00

08+00 00+00

v :

A.	0.02+00	TRICHLOROFLUOR	2
A.A.	0.08+00	2-(2,4,5-TRICE	60
YN	0.02+00	2,4-DICHLOROPH	59
AN AN	0.02+00	2,4,5-TRICHLOR	5
-08	1.02-09 3.22-08	PCB 1260	57
Y	3.58-09	HETHOXYCHLOR	56
Y.	0.02+00	LINDANB / GAMA	š
XX.	2.1E-11	HEPTACHLOR EPO	2
K.	1.45-11	BEPTACHLOR	53
K.	2.75-10	GAMMA-CHLORDAN	52
YN	1.12-11	DIELDRIN	51
A.K	6.3E-11	Beta-Endosulta	50
Y.	0.02+00	BENZOIC ACID	\$
Y.Y.	0.02+00	BENZALDERYDE	8
YX	3.3E-10	ALPEA CHLORDAN	\$
Y.A.	0.02+00	ALDRIN	6
X	3.22-09	2,2-BIS (PARA-	ŝ
W	3.92-10	2,2-BIS (PARA-	=
NA.	1.02-08	2,2-BIS (PARA-	۵

	POPULATION TOTAL	PATHWAY SUM (HI)																				
;	3E-05	3E-05	*	02+00	02+00	02+00	00+30	X.	78-07	0E+00	¥	3E-08	4E-06	2E-07	3E-07	00+30	02+00	5E-06	00+30	¥	A N	2E-05
		06+00		¥	¥	¥	¥	An	¥	X.	¥	¥	×	*	K.	*	¥,	X.	X.	¥	¥	AN
		02+00																				

0E+00

02+00

02+00

CHRONIC EXPOSURE SUMMARY

FUTURE RES-ADULT (B)

	¥	02+00					2	0.04400	42 PYRENE	
	¥	00+20					KN	0.02+00	41 PHENOL	
	X	02+00					A.A.	0.02+00		
	\$	00+20					K.	0.02+00	39 NAPETEALENE	
	¥	02+00					XX.		38 INDENO [1,2,3-	
	X.	02+00					K K	0.02+00	37 FLUORENE	
	*	0E+00					KN.	0.02+00	36 FLUORANTHENE	
	K.	02+00					KN.	0.02+00	35 DIBENZ [a,h] A	
	Z	02+00					KK.		34 CHRYSENE	
	X	02+00					KK.		33 BIS (2-ETHYLHE	
	¥ ;	02+00					KK	•		
	*	02+00					KN	0.02+00	31 BENZO [g,h,i]	
	X.	02+00					K K	0.02+00	30 BENZO [b] FLUO	
	X.	00+30		•			XX	0.02+00	29 BENZO [a] PYRE	
	XX.	02+00		-			K K	0.02+00	28 BENZO [a] ANTH	
	NA.	00+20					A.N.	0.0E+00	27 ANTERACENE	
	X	02+00					V N	0.02+00	26 ACENAPHTHENE	
	AN.	00+00					X K	0.02+00	25 2-METHYLPHENOL	
	æ	02+00					XX.	_	24 2-METEYLNAPHTH	
	X.	02+00					Y.K		23 2,4-DIMETHYLPH	
	X	00+30					YH.		22 1,3-DIMETHYLBE	
	¥	02+00					AN	0.02+00	21 1,2-DIMETHYLBE	
	K	02+00					X N	0.02+00	20 XYLENES, TOTAL	
	X.	00+20					Y.	0.02+00	19 TOLUENE	
	¥	00+30					Y.Y.	0.02+00	18 METHYLISOBUTYL	
	K.	00+30				*	X.	0.02+00	17 ETHYLBENZENB	
	¥	0E+00					Y.	0.02+00	16 CARBON DISULFI	
	¥	¥				, a f	Y.	0.02+00	15 BENZENS	
	¥	02+00				fd.	Y.	0.02+00	14 ACETONE	
	N.	00+30					N.A.	0.02+00	HUIDANAV EI	
	¥	00+30				À	KK	0.02+00	12 TEALLIUM	
	×	00+30					KN.	0.02+00	11 SILVER	
	X	00+00					AN	0.0E+00	10 NITRITE	
	NA.	02+00					XN.	0.02+00	9 NITRATE	
	N.	02+00					K N	0.02+00	8 NICKEL	
•	×	02+00					XX.	0.02+00	7 MERCURY	
	N.	02+00					A.N	0.02+00	6 CHRONIUM	
	00+30	02+00					0.02+00	•	5 CADMIUM (WATER	
	02+00	02+00					0.02+00	0.0E+00	4 CADMIUM (FOOD)	
	¥	00+00					X.N	0.0E+00	3 BERYLLIUM	
		02+00					KK	0.02+00	2 BARIUM	
02+00	•	_	0.0E+00	0.0E+00	0.02+00	0.0E+00	KK.	0.02+00	1 ARSENIC	
PROM HS4	(FROM WS2) (FROM WS3)	1 WS1)	(FROM WS6)	(PROM WS5)	(FROM WS4)	(FROM WS3)	(FROM WS2)	(FROM WS1)	CHEMICAL NAME	
0	DERMAL			0	0	0	DERMAL	ORAL		
0	SOIL	TIOS	0	0	•	0	TIOS	TIOS	•	
0		PCB POLES	•	0	•	0	PCB POLES	PCB POLES		
C OTWINISH P OTWINISH P OF	C-0122240 0 01212240	T CTUMBAG								

PUTURE RES-ADULT (B)

CHRONIC RISK SUMMARY

SITE NAME: CAMERON STATION
OPERABLE UNIT: DISK 1
FILE NAME: POP4
LAST UPDATED: 06/04/92

POPULATION TOTAL	PATHWAY SUM (HI)																•		
32-05	3E-05	0E+00	02+00	02+00	02+00	X.	72-07	02+00	2E-06	32-08	4E-06	28-07	12-06	00+30	02+00	52-06	02+00	KX.	A.A.
	00+30	¥	X.	¥	X.	X.	A.	K N	X.	¥	XX.	.	X.	K X	XX	X.	XX	ĸĸ	¥
	02+00																		
	02+00											•							

02+00

0E+00

ar by a

1.02-08
3.92-10
3.22-09
0.02+00
0.02+00
0.02+00
0.02+01
1.12-11
1.12-11
1.12-11
2.72-10
1.02-00
0.02+00
0.02+00
0.02+00

1.2E-08

43 2,2-BIS (PARA44 2,2-BIS (PARA45 2,3-BIS (PARA46 ALDRIN
47 ALPHA CELORDAN
48 BENZALDEHYDE
49 BENZOLC ACID
50 BETA-ENDOSULPA
51 DIELDRIN
52 GAMMA-CHLORDAN
53 HEPTACHLOR
54 HEPTACHLOR EPO
55 LINDANE / GAMA
56 METHOXYCHLOR
57 PCB 1260
58 2,4,5-TRICHLOROPH
60 2-(2,4,5-TRICH
61 TRICHLOROPLUOR

22-05

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LIFETIME EXPOSURE SUMMARY

FUTURE RES-ADULT (B)

		LIFETIME AV	ZRAGE DAILY	LIFETIME AVERAGE DAILY INTAKE (mg/kg/day)	ĺ			LIFETI	LIFETINE EXCESS CANCER RISK	NCER RISK		
	SCENAKIO 1	PCB POLES	0 CENWINE	SCENARIO 4	SCENARIO 5	SCENARIO 6	SCENARIO 1	SCENARIO 2	SCENARIO 3	SCENARIO 4	SCENARIO 5	SCENARIO 6
	TIOS	TIOS	•	0	0	0	SOIL			٥ (.
	ORAL	DERWAL	0	0	0		ORAL	DERHAL	0	0 (0	0 (
CHEMICAL NAME	(FROM WS1)	(FROH WS2)	(FROM WS3)	(FROM WS4)	(FROM WS5)	(FROM WS6)	(FROM WS1)	(FRON WS2)	(FROM WS3)	(FROM WS4)	(FROM WS5)	(FROM WS6)
ARSENIC	0.02+00	K.	0.02+00	0.02+00	0.02+00	0.02+00	0E+00	N.A.	0E+00	08+00	02+00	02+00
MULANG	0.02+00	XX.					X.	X.				
BERYLLIUM	0.02+00	K.					02+00	KN.				
CADHIUM (FOOD)		0.02+00					A.	X.				
CADMIUM (WATER		0.02+00					VN.	Y.				
CHROHIUM	0.08+00	X.					KN.	K K				
MERCURY	0.02+00	X.					K.	X.				
NICKEL	0.02+00	XX.					K.	XX.				
NITRATE	0.02+00	X.					X.	K.				
NITRITE	0.02+00	K					×	X.				
SILVER	0.08+00	¥					¥	¥				
MULTIVEL	0.03+00	XX	. •				¥	KN.				
MUIDANAY	0.02+00						¥	¥				
ACETONE	0.02+00	×					KK.	K.				
BENZENS		XX.					02+00	NA.				
CARBON DISULFI		3					Y.	X.				
ETGILLENGENS		3	`				. X	2				
TOLUENB	0.02+00	Z i					Z A	. A				
XYLENES, TOTAL	0.02+00	¥					X :	N.			•	
1,2-DIMETRYLBE	0.02+00	X.					K	X.				•
1,3-DIHETHYLBE		¥					X.	X.				
2,4-DIHETHYLPH		. N					X.	N.				
2-METHYLDHENOL	0.08+00	2 2					E &					
ACENAPHTHENE		Z					× :	ž ;				
ANTERACENE	0.02+00	X.					X.	X.				
BENZO [a] ANTH	0.05+00	X.					05+00	AN				
BENZO [a] PYRE	0.02+00	XX.					02+00	N.				
	0.02+00						00+30	AN				
BENZO [g,n,1]		¥					X.	X.				
BENZO [x] FLUO	_	*					00+30	AN				
BIS (Z-ETHYLHE							00+30	XX.			•	
CHRYSENE		.					02+00	X.				
DIBENT (a,h) A	·	×					02+00	X.				
FLOORANTHENE	0.08+00	: Z					*	X.				
SNEWS		3					*	X.				
INDENO [1,2,3-		: 3					00+30	XX.				
ANABLAT HATENE	0.08+00	£ %					, X	.				
PHENOL.	0.02+00	¥ 1					2 3	¥ 3				
PYRENE	0.02+00	¥ ;					2 2	£ 3				
)	;	1)

LIFETIME RISK SUMMARY

FUTURE
RES-ADULT (B)

 $\delta M \frac{2}{2T}$

SITE NAME: CAMERON STATION OPERABLE UNIT: DISK 1
FILE NAME: POP4
LAST UPDATED: 06/04/92

4.5E-09 NA 1.4E-10 NA 1.4E-10 NA 0.0E+00 NA 0.0E+00 NA 0.0E+00 NA 0.0E+01 NA	1E-07
. NA N	¥ ;
•	2 3
•	3E-09
•	K N
•	02+00
•	11-38
•	3E-11
•	2E-10
•	7E-11
•	ž
•	¥
•	X.
•	2E-10
•	02+00
•	3E-10
•	6E-11
	2E-09

43 2,2-BIS (PARA44 2,2-BIS (PARA45 2,2-BIS (PARA46 ALDRIN
47 ALPHA CHLORDAN
48 BENZALDEHYDE
49 BENZOLC ACID
50 BETA-ENDOSULFA
51 DIELDRIN
52 GAMHA-CHLORDAN
53 HEPTACHLOR
54 HEPTACHLOR EPO
55 LINDANE / GAMA
56 METHOXYCHLOR
57 PCB 1260
58 2,4,5-TRICHLOROPH
60 2-(2,4,5-TRICH
61 TRICHLOROFLOR

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02+00

0E+00

SUBCHRONIC EXPOSURE SUMMARY

CURRENT JOGGER

																			•																,													
)	42 PYRENE	41 PHENOL	40 PHENANTHRENE	39 NAPHTHALENB	38 INDENO [1,2,3-	37 FLUORENE	36 FLUORANTHENE	35 DIBENZ [a,h] A	34 CERYSENS	33 BIS (2-ETHYLHE				29 BENZO [a] PYRE	28 BENZO (a) ANTH	27 ANTERACENE	26 ACENAPHTHENE	25 2-METHYLPHENOL	24 2-METHYLNAPHTH	23 2,4-DIMETRYLPH	22 1,3-DINETEYLBE	21 1,2-DIMETRYLBE	20 XYLENES, TOTAL	19 TOLUENE	TAINGOSITABLEM 81	17 ETHYLBENIENE	16 CARBON DISULFI	15 BENZENS	14 ACETONE	HUIDANAYA ET	12 TEALLIUM	11 SILVER	10 MITRITS	9 NITRATE	* NICKEL	7 MERCURY	6 CERONIUN	S CADHIUH (WATER	4 CADKIUN (FOOD)	3 BERYLLIUM	2 BARIUM	1 ARSENIC	CHEMICAL NAME					
	3.72-09	0.08+00	3.3E-09	2.7E-10	1.12-09	7.38-10	4.02-09	0.02+00	2.7E-09	2.7E-10	1.85-09		•		_	1.35-09		-		0.02+00			9.78-10		_	9.75-10	0.05+00	9.7E-10	9.7E-10	2.25-08	0.08+00	0.02+00	0.02+00	0.02+00	6.02-09	0.02+00	2.55-08	0.02+00	0.02+00	1.1E-09	1.1E-07	0.02+00	(FROM WS1)	NOITALIANI	AIR-PART	JOG-TRAIL (SCENARIO 1	
	2.5E-10	0.02+00	2.2E-10	3.92-11	6.12-11	3.98-11	2.22-10	0.02+00	1.2E-10	3.95-11	1.02-10	4.82-11	1.02-10	1.02-10	2.5E-10	3.98-11	3.92-11	0.02+00	3.92-11	0.02+00	0.02+00	0.02+00	7.1E-11	7.1E-11	7.1E-11	7.18-11	0.02+00	7.12-11	7.15-11	1.82-09	0.05+00	0.02+00	0.02+00	0.02+00	4.4E-10	0.02+00	1.82-09	0.02+00	0.02+00	1.6E-10	9.62-09	0.02+00	(FROM WS2)	NOITALAHI	AIR-PART	JOG-TRAIL (SCENARIO 2	SUBCHRONIC
		_		•	•		_						_											٠,	÷.		-15Y	**.**		÷												0.02+00	(FROM WS3)	0	•		SCENARIO 3	SUBCHRONIC DAILY INTAKE (mg/kg/day)
																																										0.02+00	(FROM WS4)	•	•	0	SCENARIO 4	(mg/kg/day)
																																										0.02+00	(FROM WS5)	0	0	0	SCENARIO 5	
)																																		-								0.02+00	(FROM WS6)	0	0	0	SCENARIO 6	
	¥				X	*	XX.	*	X.	XX.	XX.	X.	XX.	A.A.	N.	XX.	N.	XX.	X.	Y.	02+00	02+00	1E-08	22-09	52-09	32-09	00+30	A.N	A.N.	XX.	×	XX.	K.	K.	K.N	02+00	42-03	K.	A.A.	XX.	1E-04	A.K	(PROM WS1)	NOITALANI	AIR-PART	JOG-TRAIL (SCENARIO 1	
	, A	3		*	*	X.	X.	X.	X.	X.	*	YN	XX.	A.N.	×	X.	XX.	KN	K	V N	02+00	02+00	8E-10	1E-10	4E-10	22-10	00+30	XN.	XX.	X.	K N	*	XX.	XX.	K.	02+00	32-04	, AN	X.	X.	1E-05	X.	(FROM WS2)	NOITALANI	AIR-PART	JOG-TRAIL (SCENARIO 2	SUBCHRONI
																																										08+00	(FROM WS3)	0		•	SCENARIO 3	SUBCHRONIC HAZARD QUOTIENT
																																										02+00	(FROM WS4)	0		• •	SCENARIO 4	OTIENT
																																										00+30	(FROM WS5)				SCENARIO 5	
)																																										00+30	(FROM WS6)	c	• •		SCENARIO 6	

SUBCHRONIC RISK SUMMARY

CURRENT JOGGER

5 **4** 1

SITE NAME: CAMERON STATION OPERABLE UNIT: DISK 1
FILE NAME: POP5
LAST UPDATED: 06/04/92

61 TRICHLOROFLUOR	60 2-(2,4,5-TRICH	59 2,4-DICELOROPH	58 2,4,5-TRICHLOR	57 PCB 1260	56 METHOXYCHLOR	55 LINDANE / GAMA	54 HEPTACHLOR EPO	53 HEPTACHLOR	52 GAMMA-CHLORDAN	51 DIELDRIN	50 BETA-ENDOSULFA	49 BENZOIC ACID	48 BENZALDEHYDE	47 ALPHA CHLORDAN	46 ALDRIN	45 2,2-BIS (PARA-	44 2,2-BIS (PARA-	43 2,2-BIS (PARA-	
0.08+00	0.02+00	0.0E+00	0.08+00	1.48-09	0.08+00	0.02+00	1.4E-09	1.4E-09	0.02+00	1.48-09	0.02+00	0.02+00	0.02+00	0.02+00	0.05+00	1.48-09	1.4E-09	1.4E-09	
0.02+00	0.02+00	0.02+00	0.08+00	2.08-10	0.0E+00	0.02+00	2.02-10	2.02-10	0.05+00	2.08-10	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	2.02-10	2.05-10	2.0E-10	

POPULATION TOTAL	PATHWAY SUM (HI)																					
₽	6 8	•	* 0E																			
4E-03	(E-03		00	X	X	X	×	¥	×	¥	¥	X	XX	A	¥	X.	¥	¥	¥	¥	¥	
	32-04		00+30	X.	X	¥	¥	¥	×	M	X.	ĸ	¥	¥	ĸ	¥	K.	¥	¥	¥	¥.	
	02+00																					

CHRONIC EXPOSURE SUHMARY

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CURRENT JOGGER

	42 PYRENE	41 PHENOL	40 PHENANTERENE	39 NAPHTHALENE	38 INDENO [1,2,3-	37 FLUORENE	. 36 FLUORANTHENS	35 DIBENZ (a,h) A	34 CHRYSENE	33 BIS (2-ETHYLHE				BENZO	28 BENZO [a] ANTE	27 ANTHRACENE	26 ACENAPHTHENE	25 2-METHYLPHENOL	24 2-METHYLNAPHTH	23 2,4-DINETHYLPH	22 1,3-DIMETHYLBE	21 1,2-DIMETHYLBE	20 XYLENES, TOTAL	19 TOLUENE	18 METHYLISOBUTYL	17 STHYLBENZENS	16 CARBON DISULFI	15 BENZENB	14 ACETONE	MUIDANAY (1	12 TEALLIUM	11 SILVER	10 NITRITE	9 NITRATE	NICKEL	7 MERCURY	6 CEROMIUM	5 CADMIUM (WATER	4 CADMIUM (FOOD)	3 BERYLLIUM	2 BARIUM	1 ARSENIC	CHEMICAL NAME				
,	3.72-09	0.02+00	3.35-09		_	7.3E-10	4.0E-09		2.78-09		0 1.82-09		0 2.38-09	B 2.1E-09	H 2.7E-09	1.32-09	8.4E-10	-	H 2.7E-10	•			•				_	9.7E-10	9.7E-10	2.22-08	0.02+00	0.02+00	0.02+00	0.02+00	6.05-09	0-02+00		-	_	1.12-09	1.15-07			NOITALABNI	AIR-PART	JOG-TRAIL (SCENARIO 1
	2.55-10	0-08-00	2.28-10	3.98-11	6.12-11	3.92-11	2.22-10	0.02+00	1.2E-10	3.9E-11	1.0E-10	4.8E-11	1.0E-10	1.02-10	2.5E-10	3.9E-11	3.9E-11	0.02+00	3.9E-11	0.02+00	0.02+00	0.02+00	7.1E-11	7.1E-11	7.1E-11	7.1E-11	0.02+00	7.1E-11	7.1E-11	1.02-09	0.02+00	0.02+00	0.02+00	0.02+00	4.4R-10	0.08+00	1.88-09	0.00+00	0.02+00	1.62-10	9.62-09	0.02+00	(PROM WS2)	NOITALANI	AIR-PART	_	SCENARIO 2 SCENARIO
																									- 'L'		• 3.			*	es.											_	FROM WS31	0	0	_	٦
																																												0	0 (0	3 SCENARIO 4
		٠								٠	•																															(F NOW 40)	SSE MORE	0	0 (0	SCENARIO 5
)																																									0.00	(FACH WAS)	LYSON MODEL	> (.		SCENARTO 6
3	E 2		. ·			Z ;	**	¥	¥	¥	¥	¥	¥.	XX.	3	¥ ;		¥ ;	¥ ;	YN So: 30	08+00	02+00	18-08	2E-09	58-08	3E-09	0E+00	¥ ;	X	¥ ;	¥ :	¥ \$	£ ;	5 3	200	20-02		5 3	5 3	Z 2	15-03	(Tem MONE)	MOTIVATEDAT	THATLATION	ATR-PART	JOG-TRATE.	CORNADIO
3	. ×	2	2	3	E Š	2 :	*	Z	¥	¥	X.	KY.									00+00	04+20					0					Z 5			0							(AKOM MS	MOTIVINANT	THE TARTON	TRACTAL (A ATTENDED OF A	C OTOLOGO
								•																																	05100	(FKOR WS3)		> <	5 6	013333	OTO 2 SCRUPTO 3 SCI
																												•	•												08+00	(FROM WS4)		> <	> <	• CTURNED	CONTRACT
																																									00+00	(FROM WS5)				C OTYMATO	
)																																									02+00	(FROM WS6)		.	.	o otraviane	

CHRONIC RISK SUMMARY

CURRENT JOGGER

SITE NAME: CAMERON STATION
OPERABLE UNIT: DISK 1
FILE NAME: POP5
LAST UPDATED: 06/04/92

1.4E-09 2.0E-10 1.4E-09 2.0E-10 0.0E+00			9	7	0.0E+0	0.02+0	0.02+0
	8 5 5	0.02+00					_
		08+00 08+00	0E-10	02+00	02+00	02+00	20120

POPULATION TOTAL	PATEWAY SUM (BI)																			
4E-02	4E-02	02+00	A.A.	X.	KN.	X.	XX.	. NA	X	V N	X	XX.	K N	X.X	X.	X N	XX	N.	K I	ĸ
	3E-03	00+30	X.	An	X	V N	X.	¥	X	¥	K.	A.	X.	X.	X.	A.A.	X,	XX	X.	· YN
	02+00																			
	02+00																			

02+00

0E+00

LIFETIME EXPOSURE SUMMARY

CURRENT

42 PYRENE		_	_	38 INDENO [1,2,3-	37 FLUORENE	36 FLUORANTHENS	35 DIBENZ [a,h]	34 CHRYSENS	33 BIS (2-ETHYLHE	32 BENZO [k] FLUO	31 BENZO (g,	30 BENZO [b]	29 BENEO [a]	28 BENSO (a) ANTH	27 ANTHRACENE	26 ACENAPHTHENE	25 2-METHYLPHENOL	24 2-WETRYLUNDHTH	23 2.4-DIMETHYLPH	21 1,2-DIMETHYLBE	20 XYLENES, TOTAL	19 TOLUENE	TALMEDSITABLEM 81	17 STHYLBENZENE	16 CARBON DISULFI	15 BENZENB	14 ACETONE	HOIDWIN ET	12 THALLIUM	11 SILVER	10 NITRITE	9 NITRATE	B NICKEL	7 MERCURY	CERCUTIN	S CADMIUM (WATER	A CAPACITA !	2 BARTUR	1 ARSENIC	r					
1.62-09				1,2,3- 4.5E-10	3.1E-10	IENS 1.7E-09	1,h] A 0.0E+00	1.1E-09	MYLHE 1.1E-10	FLUO 7.4E-10	[g,h,i] 3.8E-10	[b] FLUO 9.6E-10	[a] PYRE 8.8E-10	_					OO+30.0 BGIKE			4.1E-10	BUTYL 4.1E-10			4.1E-10	4.1E-10	9.42-09	0.02+00	0.02+00	0.02+00	0.02+00	2.5E-09	0.05+00		-	10001 0.02±00		0.0E+00	(FR		AIR-PART	JOG-TRAIL	SCENARIO 1	
	_		_	-10 2.5E-11	-10 1.6E-11	-09 9.4E-11	100 0.0E+00	-09 5.2E-11	-10 1.6E-11	-10 4.2E-11	-10 2.0E-11	-10 4.2E-11	-10 4.2E-11						0.02+00				_		00 0.0E+00			-					_							(FR			~	-	LIPETIME A
			•		•	•	_																		ૼૢૺ૽૽ૡ૽	(···			H.										0.02+00		_	0	•	SCENARIO 3	LIPETIME AVERAGE DAILY INTAKE (mg/kg/day)
								٠																															0.02+00		_	•	•	SCENARIO 4 SC	NTAKE (mg/kg/d
																																							0.02,00	(F)	_	0	0	RIO 5	lay)
•						1.7		:																															0.02+00	(FROM WS6)	0	6	0	SCENARIO 6	
X.	E	¥	¥	¥	KN.	X.	X X	AN	AN	AN	X.	A.	A.	K.	X.	V N	.		Z 3		NA.	A.	X N	K N	AN.	1E-11	K N	KN.	K N	K N	×	K.	*	i .	49-07	08+00	00-40	2 N	02+00			AIR-PART	_	SCENARIO 1	
X.	*	¥	XX.	K.	¥	X.	X,	XX	KK	ĸ	X.	N.	X.	¥	X.	X.	¥ ;	¥ ;	2	.	X	¥	K,	X.	X N	02+00	X.	¥	¥	XX.	AN.	X.	X	¥ ;	19.00	00+30	0440	\$ 10 A	00+30		_	AIR-PART	JOG-TRAIL (SCENARIO 2 SC	LIFETIME EXCESS
																																							08+00		_	0	0	SCENARIO 3 SCI	EXCESS CANCE
																																							00+30		_	•	•	SCHNARIO 4 SCH	CANCER RISK
																																							02+00		_	•	•	SCENARIO 5 SCE	
																																							02+00	(FROM WS6)			. 0	SCENARIO 6	

CURRENT

LIFETIME RISK SUMMARY

SITE NAME: CAMERON STATION
OPERABLE UNIT: DISK 1
FILE NAME: POP5
LAST UPDATED: 06/04/92

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61 TRICHLOROFLUOR	60 2+(2,4,5-TRICE	59 2,4-DICHLOROPH	58 2,4,5-TRICHLOR	57 PCB 1260	56 METHOXYCHLOR	55 LINDANB / GAMA	54 HEPTACHLOR EPO	53 HEPTACHLOR	52 GAMMA-CHLORDAN	51 DIBLORIN	50 BETA-ENDOSULFA	49 BENZOIC ACID	48 BENZALDEHYDE	47 ALPHA CHLORDAN	46 ALDRIN	45 2,2-BIS (PARA-	44 2,2-BIS (PARA-	43 2,2-BIS (PARA-
0.02+00	0.02+00	0.02+00	0.02+00	5.7E-10	0.02+00	0.02+00	5.7E-10	5.72-10	0.02+00	5.72-10	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	5.7E-10	5.7E-10	5.7E-10
0.02+00	0.02+00	0.02+00	0.02+00	8.4E-11	0.02+00	0.02+00	8.4E-11	8.48-11	0.02+00	8.4E-11	0.0E+00	0.02+00	0.08+00	0.08+00	0.08+00	8.4E-11	8.48-11	8.4E-11

POPULATION TOTAL	TOTAL PA
TATOT	AVMHL
EXCESS RISE	PATHWAY CANCER RISK
RISK	RISK
4E-07	4E-07
	32-

2E-10 3E-11 NA NA NA NA 0B+00 0E+00 0E+00 0E+00 NA NA NA NA 9E-09 1E-09 0E+00 0E+00 3E-09 4E-10 5E-09 8E-10 NA NA NA	02+00	0E+00	32-08	4E-07	RISK
•					
			N.	¥.	
•			X.	A.	
			X.	X.	
			AN	XX.	
•			X	¥	
•			¥	¥	
•			YN	X.	
•			8E-10	5E-09	
•			4E-10	3E-09 .	
			08+00	02+00	
			1E-09	9E-09	
			AN	X.	
			A.K	X.	
			XX	AN	
			08+00	02+00	
			0E+00	08+00	
			X.	XX.	
			X	A.	
			3E-11	2E-10	

SUBCERONIC RISK SUMMARY

SUBCERONIC EXPOSURE SUMMARY

CURRENT GAS. WORKER

SUBCHRONIC DAILY INTAKE (mg/kg/day) SUBCHRONIC HAZARD QUOTIENT CURRENT GAS. WORKER

42 PYRENE 0.0E+00 5.5E-10	THRENE C. CE+CC	NAPHTHALENE 4.65-21	INDENO [1,2,3- 0.05+00]	FLUORENE 0.08+00	FLUORANTHENE 0.0E+00	DIBENZ (a,h) A		33 BIS (2-ETHYLHE 0.0E+00 8.5E-11		31 BENZO [g,h,i] 0.0E+00 1.1E-10	0.08+00	29 BENZO [a] PYRE 0.0E+00 2.2E-10	ANTH 0.05+00	0.05+00	0.02+00	0.0B+00	0.08+00	0.08+00	0.08+00	0.08+00	TOTAL 1.8E-18	5.0E-19	YL 5.0E-20 1.5E-10	1.22-19	DISULFI 0.08+00 0.08+00	2.7E-18 1.5E-10	3.8E-16 1.5E-10	0.08+00	UH 0.0E+00 0.0E+00	0.08+00	0.08+00	0.02+00	0.02+00	0.05+00	0.02+00	0.08+00	FOOD) 0.0E+00	TUM 0.02+00	0.02+00 2.12-08	0.02+00 0.02+00		Š		BLDG-23 BLDG-23	CENTRAL T SCHUMEN TO SCHUMEN TO SCHUMEN TO S
																																								0.02+00	(FROM WS4)	0	0	0	00000000
																																									(FROM WS5) (F)	•	•	•	
																																								0.08+00	(FROM WS6)	0	•	0	
N X	. ×	XX.	X.	XN.	AN	٨x	XN.	N.	KN.	AN	K,	N.	¥ ;	× .	Z :	¥ 5	2 3	22	05+00	004	05+00	02+00	0E+00	00+30	0E+00	X	X.	N.	NA :	X :	N.	NA :	X	0E+00	05+00	*	Z :	Z.	0E+00			NOI			
N X	X.	X.	YN	AN	KN.	AN	A.	ĸĸ	AN.	YX	XN.	×	X :	N I	¥ :	¥ \$	2 3	00+00	9 0	05100	3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3E-10	8E-10	58-10	0E+00	¥ ;	¥ ;	N i	X :	X :	× ;	X :	N.	08+00	78-04	× ;		N C	2E-05			INHALATION	AIR-PART		
																																							00.00	•	FROM WS31 /F	0 (0 (0	DEPTH OF BE
																																							00100	-		0	0	0	P OTSSTAN
														,																									05100	(4000 400)	PROM WS51	0,	0 (246655
																																					·		00100	(1004 1004)	FROM WS61	0 (0 (0	0465555

SITE NAME: CAMERON STATION
OPERABLE UNIT: DISK 2
FILE NAME: POP2
LAST UPDATED: 06/04/92

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	ALDRIN ALPHA CHLORDAN	(Para- (Para- (Para-
	0.08+00	0.02+00 0.02+00
0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00	0.02+00	4.4E-10

POPULATION TOTAL	PATHWAY SUH (HI)																					
7E-04	02+00	s -	0E+			AA	_			_	_		_	_	_		_			_	_	
2	8		8	ž	×	ž	ξ	ž	ξ	¥	ž	₹	ž	\$	۶	ž	۶	\$	۶	ž	\$	
	7E-04		0E+00	AN	XX	YN	XX	X.	AN	X.	AN	XX	X.	X.	X.	X.	N.	X.	NA.	XX	X.	
	02+00																					

00+30

0E+00

0E+00

CHRONIC EXPOSURE SUHMARY

CURRENT GAS. WORKER

		CA)		1,2,3-	FLUORENE 0.0		DIBENZ (a,h) A 0.0	CHRYSENE 0.0	BIS (2-ETHYLHE 0.0	BENZO [k] FIUO 0.0	BENZO [g,h,1] 0.0	OUT! [4]	BENZO (a) PYRE 0.0		ANTHRACENE 0.0	ACENAPHTHENE 0.0	2-METHYLPHENOL 0.0	2-METHYLNAPHTH 0.0	2,4-DIMETHYLPH 0.0	1,3-DIMETHYLBE 0.0		XYLENES, TOTAL 1.6	TOLUENE 5.0	Ţ	ETHYLBENZENE 1.2	DISULFI			_	3			C4			•	-	(900	IUM		•	CHEMICAL NAME (FROM WS1)	INHATATION	AIR-VOC	BLDG-23	SCENARIO
			4.6E-21	_	0.08+00	0.02+00	0.08+00	0.0B+00 :	0.02+00	0.02+00	0.02+00		0.02+00	0.08+00	0.08+00	0.03+00	0.02+00					1.85-18	5.08-19							_											· [Ž.			-
5.5E-10	0.02+00	4.98-10	8.55-11	1.3E-10	8.5E-11	4.9E-10	0.02+00	2.7E-10	8.5E-11	2.28-10	1.1E-10	2.28-10	2.2E-10	5.52-10	8.5E-11	8.5E-11	0.02+00	8.5E-11	0.02+00	0.02+00	0.02+00	1.5E-10	1.5E-10	1.5E-10							_	0.02+00	0.02+00	9.7E-10	0.02+00	3.9E-09	0.02+00	0.02+00	3.4E-10	2.1E-08	_	(FROM WS2) (1	TATTON	AIR-PART		SCENARIO 2 SC
																										ş.	· .	•			•										0.02+00	FROM WS31	.	•	0	SCENARIO 2 SCENARIO 3 SCENARIO
														,																											0.02+00	FROM WS41	> 1	•	0	SCENARIO 4
																																								;	0.05+00	(FROM WS5)	> •	0	0	SCENARIO 5
																	•	•																						;	0.0E+00	FROM WS61	> 6	ο ,		SCENARIO 6
X :	X :	¥ .	AN.	XN.	NA.	XX.	K	X K	KK	XN.	X.	X N	K N	XN.	KN.	X.	K.	V N	X.	00+00	0E+00	0E+00	0E+00	00+00	0E+00	02+00	X.	*	×	XX	N.	× ;	X :	N.	08+00	0E+00	× ;	NA :	K	0E+00	KN	TROM WS11	THEFT	AIR-VOC	BLDG-23	SCENARIO 1
¥ ;	¥ ;	¥ :	×.	X.	X N	X.	A.N	A.N.	KK	X.	KN	X.	KN	KN.	KN	KN.	XX.	N.	KN.	0E+00	0E+00	2E-09	3E-10	8E-09	52-10	0E+00	× .	*	A.N.	× ×	×	2	X :	N.	DE+00	7E-03	N .	X :	X .	2E-04	KN (2011)	TNEATATION	THE PART OF THE PA	ATR-PART	BLDG-23	SCENARIO 2
																																									00+30	ILSA MOBA/	> <	0 (0	NARIO 2 SCENARIO 3 SCI
																																									00+20	I Par Model	> 0	5 (0	SCENARIO 4
																									•																00+400	1555 MODEL	•	5 (SCENARIO 5
																																								i	05+00	1 year Modd	> 6	5 (SCENARIO 6

CERONIC RISK SUMMARY

CURRENT GAS. WORKER

SITE NAME: CAMERON STATION OPERABLE UNIT: DISK 2
FILE NAME: POP2
LAST UPDATED: 06/04/92

POPULATION TOTAL	PATHWAY SUH (HI)																		
7E-03	00+30	00+30	N.	X N	K N	N.A.	KN.	X.	KN	K N	KN	AN	KN	A.	N.	X.	KK	X.	AN
	7E-03	02+00	N.	N.	N.	AN	X.	N.	N.	ΝA	X.	X.	ΑN	AN	K N	K N	XX	A.	KN
	0E+00																		

ž

X

02+00 0E+00

02+00

LIFETIME RISK SUMMARY

CURRENT GAS. WORKER

CURRENT GAS. WORKER

LIFETIME EXPOSURE SUMMARY

				Diction Contract	The party of the state of the s	/Yen/			112217	LIFETIME EXCESS CANCER RISK	NCER RISK		
		SCENARIO 1	SCENARIO 2	SCENARIO 3	SCENARIO 4	SCENARIO 5	SCENARIO 6	SCENARIO 1	SCENARIO 2	SCENARIO 3	SCENARIO 4	SCENARIO 5	SCENARIO
		AIR-VOC	AIR-PART		0 (0 (AIR-VOC	AIR-PART	ъ «	0 (0 (
		NOITALAHION	INHALATION	•	0	0	0	INHALATION	INHALATION	0	0	•	
	CHEHICAL NAME	(FROM WS1)	(FROM WS2)	(FROM WS3)	(FROM WS4)	(FROM WS5)	(FROM WS6)	(FROM WS1)	(FROM WS2)	(FROM WS3)	(FROM WS4)	(FROM WS5)	(FROM WS6)
-	;	0.02+00	0.0E+00	0.02+00	0.05+00	0.02+00	0.0E+00	0E+00	02+00	02+00	02+00	02+00	02+00
N	BARIUM	0.02+00	3.02-09					N.	4 %				
w	BERYLLIUM	0.02+00	4.8E-11					02+00	4E-10				
•	CADMIUM (FOOD)	0.02+00	0.02+00					0E+00	0E+00		٠		
G	CADHIUM (WATER	0.02+00	0.02+00					0E+00	02+00				
•	CHROHIUM	0.02+00	5.5E-10					0E+00	2E-08				
7	HERCURY	0.05+00	0.0E+00					N.	K K				
•	NICKEL	0.02+00	1.4E-10					K N	AN				
9	NITRATE	0.0E+00	0.02+00			-		X.	AN				
5	NITRITE	0.02+00	0.0E+00					AN	AN				
=	SILVER	0.0E+00	0.02+00	ş.				AN	AN				
12	MULTIVAL	0.02+00	0.0E+00					KN.	KN				
1	MULDVNVA	0.02+00	5.4E-10	. •				N.	V K				
=	ACETONE	5.4E-17	2.2E-11	.,⊀^				A.N	KN				
15	BENZENS	3.82-19	2.2E-11	4 (* <mark>4</mark>)				00+30	02+00				
5	CARBON DISULFI	0.02+00	0.02+00	;-				KN.	X.				
: 5	STRYLBENZENE	1.72-20	2.28-11	, 1 h			-	, N	NA NA				
19	TOLUZNE	7.0E-20	2.28-11					× :	¥ :				
20	XYLENES, TOTAL	2.5E-19	2.2E-11					NA.	KN.				
21	1,2-DIMETHYLBE	0.02+00	0.02+00					X.	KN.				
22	1,3-DIMETHYLBE	0.0E+00	0.0E+00					K N	XN.				
23	2,4-DIMETHYLPH	0.02+00	0.02+00					K N	AN.				
24	2-METHYLNAPHTH	0.02+00	1.2E-11					AN	AN				
25		0.02+00	0.0E+00					N.	KN.				
26		0.02+00	1.2E-11					N.A.	XN.				
27		0.02+00	1.2E-11					NA.	AN.				
2 2	BENZO (A)	0.05+00	7.8E-11					KN	. NA				
5 0	DANSO OTRIBO	0.05+00	3-18-11					N.	¥ %				
<u>.</u>		0.02+00	1.58-11					2 2	2 3				
32	BENZO	0.02+00	3.1E-11					¥ ;	× :				
ü		0.02+00	1.28-11					NA.	KN.				
34	CHRYSENS	0.02+00	3.9E-11					KN	KN				
35		0.02+00	0.02+00					X.N	YN.				
36		0.02+00	7.0E-11					NA.	X.				
37		0.00+00	1.28-11					NA.	N.A.				
ם פ	ENDERO (A,A,A)	S - 581-22	1.78-11					E 3	E 7				
6	PHENANTHRENS	0.02+00	7.0E-11					¥ 3	N S				
=	PHENOL	0.02+00	0.02+00					X.	¥ ;				
2		0.02+00	7.8E-11					X :	X ::				
)	•											

SITE NAME: CAMERON STATION OPERABLE UNIT: DISK 2
FILE NAME: POP2
LAST UPDATED: 06/04/92

			X 2E-08	POPULATION TOTAL EXCESS RISK
0E+00	0E+00	2E-08	5K 0E+00	TOTAL PATHWAY CANCER RISK
		V N	AN	
		KN.	AN	
		A N	NA.	
		A.	A.N	
		NA.	X.	;
		A.N.	AN	
		AN	A.	
		6E-10	0E+00	
		3E-10	0E+00	
		0E+00	0E+00	
		1E-09	0E+00	
		A.	A.	
		K N	N.	
		N.	A.N.	
		0E+00	00+30	
		0E+00	0E+00	
		X.	A.	
		N.	AN	
		2E-11	0E+00	

0E+00

0E+00

CURRENT EXERCISER CURRENT EXERCISER

SUBCERONIC EXPOSURE SUMMARY

	N H	_	0						
	MRICH		CHEMICAL NAME						
	1.3E-07	0.02+00	(FROM WS1)	NOITALIANI	AIR-PART	BALL FIELD	SCENARIO 1		
		0.02+00	(FROM WS2) (FROM WS3)	0	0	0	SCENARIO 2	SUBCHRONIC I	
		0.02+00	(FROM WS3)	•		•	SCENARIO 3	SUBCHRONIC DAILY INTAKE (mg/kg/day	
		0.02+00	(FROM WS4) (FROM WS5)	0	•	•	SCENARIO 2 SCENARIO 3 SCENARIO 4 SCENARIO 5 SCENARIO	(mg/kg/day)	
		0.02+00	(FROM WS5)	0	0	0	SCENARIO 5		
		0.0E+00	(FROM WS6)	0	0	•	SCENARIO 6		
=	1E-04	X.	(FROM WS1)	NOITALANI	AIR-PART	BALL FIELD	SCENARIO 1 SCE		
		05+00	(FROM WS2)		0	0	SCENARIO 2	SUBCHRONI	
		00+30	(FROM WS2) (FROM WS3) (FROM WS5) (FROM WS5)	•	•	•	ENARIO 2 SCENARIO 3 SCENARIO 4 SCENARIO 5 SCENARIO	SUBCHRONIC BAZARD QUOTIEN	
		00+20	(FROM WS4)	0	•	•	SCENARIO 4	TIENT	
		02+00	(FROM WS5)	•			SCENARIO 5		
		06+30	(FROM WS6)				SCENARIO 6		

BERYLLIUM

4 CADMIUM (FOOD)

5 CADMIUM (WATER

6 CHRONIUM

7 MERCURY

8 NICKEL

9 NITRATE

10 NITRATE

11 SILVER

12 TEALLIUM

13 VANADIUM

14 VANADIUM

15 BENZENE

15 BENZENE

0.0E+00 7.6E-09 0.0E+00 0.0E+00 0.0E+00

0.02+00

3.22-08

6E-03 0E+00 NA

0.0E+00 1.3E-07 1.4E-09

17 ETHYLBENZENE
18 METHYLISOBUTYL
19 TOLUENE
20 XYLENES, TOTAL
21 1,2-DIETHYLBE

1, 3-DIMETHYLBE

1.2E-09 0.0E+00 0.0E+00 0.0E+00

2E-09 1E-08 0E+00 0E+00

0E+00 4E-09 6E-09

CARBON DISULFI

2.8E-08 1.2E-09 1.2E-09 0.0E+00 1.2E-09 1.2E-09

.....

28 BENZO (a) ANTH
29 BENZO (a) PYRE
30 BENZO (b) FLUO
31 BENZO (g,b,i)
32 BENZO (k) FLUO
33 BIS (2-ETHYLHE
34 CHRYSENE

FLUORANTHENS DIBENZ [a,h] A

3.4E-09 0.0E+00

3.4E-10 2.28-09 1.18-09 2.7E-09

PYRENE

TONSEL

4.2E-09 0.0E+00 4.7E-09

3.4B-10 9.38-10 5.1E-09

1.4E-09

Phenanthrene INDENO [1,2,3-FLUORENB 26 ACENAPHTHENE 27 ANTHRACENE 24 2-METHYLNAPHTH 25 2-METHYLPHENOL 23 2,4-DIMETHYLPH

1.6E-09

2.98-09

0.0E+00 3.4E-10

1.12-09

58 2 j

SUBCERONIC RISK SUMMARY

SITE NAME: CAMERON STATION
OPERABLE UNIT: DISK 2
FILE NAME: POP1
LAST UPDATED: 06/04/92

POPULATION TOTAL	PATHWAY SUM (HI)																					
6E-03	6E-03	*	00+30	XX.	XN.	XX	AN.	XN.	X.	XX.	A.	KN	N.	X.	AN	K.	KN.	N.	X.	AN	KN.	
	00+30																					
	06+00																					

02+00

02+00

0E+00

CHRONIC EXPOSURE SUMMARY

1

CURRENT EXERCISER

39 NAPHTHALENS 40 PHENANTHRENS 41 PHENOL	35 DIBENS [a,h] A 36 FLUORANTHENS 37 FLUORENS 38 INDENO [1,2,3-	27 ANTHRÁCENE 28 BENZO [a] ANTH 29 BENZO [a] PYRE 30 BENZO [b] FLUO 31 BENZO [g,h,1] 32 BENZO [g,h,2] 33 BIS [2-ETHYLHE 34 CHRYSENE	17 ETHYLBENZENE 18 METHYLISOBUTYL 19 TOLUZNE 20 XYLENES, TOTAL 21 1,2-DIMETHYLBE 22 1,3-DIMETHYLBE 23 2,4-DIMETHYLPE 24 2-METHYLNAPHTH 25 2-METHYLPHENOL 26 ACENAPHTHENE	2 BARIUM 3 BERYLLIUM 4 CADMIUM (FOOD) 5 CADMIUM (WATER 6 CHRONIUM 7 MERCURY 8 MICKEL 9 MITRATE 10 MITRATE 11 BITVER 12 THALLIUM 13 THALLIUM 14 ACETONE 15 BENZENE 16 CARBON DISULFI	SCE BAI BAI ARSENICAL NAME (FR
	5.1H-09 9.3H-10 1.4H-09	1.68-09 3.48-09 2.78-09 2.98-09 1.18-09 1.18-09 2.28-09 3.48-10	1.28-09 1.28-09 1.28-09 1.28-09 1.28-09 0.08+00 0.08+00 0.08+00 0.08+00	1.3E-07 1.4E-09 0.0E+00 0.0E+00 0.0E+00 7.6E-09 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00	SCENARIO 1 S BALL FIELD AIR-PART INHALATION (FROM WS1) (0.0E+00
					CHRONIC DAI SCENARIO 2 0 0 0 0 (FROM WS2) 0.02+00
			age ^{con}	Agrical Agrica	CHRONIC DAILY INTAKE (mg/kg/day) SCENARIO 2 SCENARIO 3 SCENARIO 0 0 0 0 0 0 0 0 0 (FROM WS2) (FROM WS3) (FROM WS 0.0E+00 0.0E+00 0.0E
					g/kg/day) scenario 4 scenario 4 0 0 0 (From WS4) 0.0E+00
				-	SCENARIO 5 0 0 0 0 (FROM WS5)
					SCENARIO 6 0 0 0 (FROM WS6) 0.0E+00
7	AN AN AN AN	**************************************	4E-09 6E-09 2E-09 0E+00 0E+00 NA NA	1E-03 NA NA 6E-02 02+00 NA NA NA NA NA NA	SCENARIO 1 BALL FIELD AIR-PART INHALATION (FROM HS1)
		. ••			CHRONIC SCENARIO 2 0 0 (FROM WS2)
					CHRONIC HAZARD QUOTIENT NARIO 2 SCENARIO 3 SCI 0
	·				SCENARIO (SCENARIO (O O O OFFICH WS()
					SCENARIO 5 0 0 0 (FROM WS5)
					SCENARIO 6 0 0 0 0 (FROM WS6)

CHRONIC RISK SUMMARY

CURRENT EXERCISER

SITE NAME: CAMERON STATION OPERABLE UNIT: DISK 2
FILE NAME: POP1
LAST UPDATED: 06/04/92

2	ŝ	59	5 8	57	2	55	ž	53	52	51	Š	Ĝ	8	5	6	G	2	3
TRICHLOROFLUOR	2-(2,4,5-TRICH	2,4-DICHLOROPH	2,4,5-TRICHLOR	PCB 1260	METHOXYCHLOR	LINDANE / GAMA	REPTACHIOR EPO	HEPTACHLOR	GAMMA-CHLORDAN	DIELDRIN	BETA-ENDOSULFA	BENZOIC ACID	Benzaldehyde	ALPHA CHLORDAN	ALDRIN	2,2-BIS (PARA-	2,2-BIS (PARA-	2,2-BIS (PARA-
0.02+00	0.02+00	0.02+00	0.02+00	1.72-09	0.05+00	0.02+00	1.72-09	1.72-09	0.02+00	1.72-09	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	1.72-09	1.7E-09	1.7E-09

POPULATION TOTAL PATHWAY SUM (HI) 6E-02 6E-02 0E+00 02+00

02+00

02+00

0E+00

SITE NAME: CAMERON STATION OPERABLE UNIT: DISK 2 FILE NAME: POP1 LAST UPDATED: 06/04/92

LIPETIME RISK SUMMARY

CURRENT EXERCISER

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CURRENT EXERCISER

LIFETIME EXPOSURE SUMMARY

	41 PHENOL	40 PHENANTHRENE	39 NAPHTHALENE	18 TUDBUO [1.2.1-	37 FLUORENE	To a Book Carrent	SHERNAGOLITE SE	35 DIBENZ [a,h] A	of Chickering	34 CHRYSENE	33 BIS (2-ETHYLHE	to become (a) a second	TALLIAL USBAR CE	31 BENZO [g,h,1]	corra (a) causa or		29 BENZO (a) PYRE	28 BENZO (a) ANTH	37 AUTHOLCEUR	26 ACENAPHTHENE	TOWARTHE SEASON	AR A WEST THEW	24 2-METHYLNAPHTH	23 2,4-DIMETHYLPH	33 1 1-DIMPRIVING	21 1,2-DIMETHYLBE	40 ALBENDO, ACTAN	TOTAL BENEFACTOR	19 TOLUENE	18 METHYLISOBUTYL	1/ BIGILDENGONS	THE PROPERTY OF	16 CARBON DISULFI	15 BENZENS	14 ACETONE		MILITARIA EL	12 THALLIUM	TI STLVEK		10 MINDING	9 MITRATE	• NICKEL	7 MERCURY	6 CHROMIUM	CAURTON (MATER			1 PERTITION	2 BARIUM	1 ARSENIC .	CHEMICAL NAME							
3 14 00	0.05+00	1.85-09	1.55-10	1- 5.98-10	4.0E-10		2,28-09	A 0.08+00		1.58-09	1.5E-10			4.98-10		_	E 1.2E-09	TH 1.5E-09	6 0R-10	4.7E-10	_		TH 1.5E-10	0.0E+00		0.02+00			5.32-10	7L 5.3E-10				5.3E-10	5.3E-10		1.28-08	0.02+00	0.08400		0.08+00	0.02+00	3.36-09	0.02+00	1.4E-08	-			6. 2E-10	5.82-08	0.02+00	(FROM WS1)	TUDALACI	TUUT 1 1 100	AIR-PART	BALL FIELD	SCENARIO 1	ļ	
																																																			0.02+00	(FROM WSZ)		>	0	0	SCENARIO 2	PAN GULLBATO	TOTAL BUTMONT
																															٠.		1.5	Ţ.	<i>-</i>																0.02+00	(FROM MS3)		>	0	•	SCENARIO 3	SOUTH TATEL	;;;)g 71++4
																																																			0.02+00	(FROM MO4)		>	0	•	SCENARIO 4	PITETIAN WASHING DATE THIND (MALAN, CO.)	**************************************
												•																																							0.02+00	(COM MONT)		-	0	0	SCENARIO 5	y/us/	14
																																									v.										0.0E+00	(FROM MOD)		5	•	•	SCENARIO 6		
N.	A.	AN	25	××	NA.		××	22		Z>	22		××	NA.		2	A N	××	×	XX.		2	KN	3	4 ×	NA		××	XN.	25		*	XX.	2E-11	3	4	XX.	K		N T	*	X.	XX.	NA.	00-07		05+00	05+00	5E-09	KN	06+00	(TEN HOLD)	A PROPERTY OF	THATATION	AIR-PART	BALL FIELD	SCENARIO 1		
																																																			00+30	(FROM #32)	1550 4511	0	0	0	SCENARIO 2		1.15571
																																																			02+00	(CON HOS)	TENOM REST	•	•	•	SCENARIO 3		LIFETIME EXCESS CANCER RISK
																																																			08+00	(FROM MOA)	I Fam Model	0	0	0	SCENARIO 4	2000	とつがか かてのス
																																																			05400	(2000 1000)	ABON ROSI	0	•	•	SCENAKTO 2	20011170	
																																																			05400	(1,000	TROM WAS	0	0	•	SCENARIO 0	CORMINATO	

60 2-(2,4,5-TRICH 61 TRICHLOROFLUOR	59 2,4-DICHLOROPH	58 2,4,5-TRICHLOR	57 PCB 1260	56 HETHOXYCHLOR	55 LINDANE / GAMA	54 HEPTACHLOR EPO	53 HEPTACHLOR	52 GAMMA-CHLORDAN	51 DIELDRIN	50 BETA-ENDOSULFA	49 BENZOIC ACID	48 BENZALDEHYDE	47 ALPHA CHLORDAN	46 ALDRIN	45 2,2-BIS (PARA-	44 2,2-BIS (PARA-	43 2,2-BIS (PARA-
0.0E+00 0.0E+00	0.08+00	0.02+00	7.52-10	0.0E+00	0.02+00	7.58-10	7.58-10	0.02+00	7.5E-10	0.02+00	0.02+00	0.0E+00	0.05+00	0.02+00	7.5E-10	7.5E-10	7.5E-10

POPULATION TOTAL EXCESS RISK	TOTAL PATHWAY CANCER RISK																			
6E-07	6E-07	AN	A N	K.	X.	K N	K N	K N	7E-09	3E-09	02+00	1E-08	K N	A.Y.	KN KN	0E+00	0E+00	KN	N.	3E-10
	02+00																			
	02+00																			
	02+00																			

02+00

00+30

SUBCHRONIC EXPOSURE SUMMARY

CURRENT HAINT. WORKER

	I		SUBCERONIC	SUBCERONIC DAILY INTAKE	(mg/kg/day)				SUBCHRON	SUBCHRONIC HAZARD QU	QUOTIENT		
	S S S S S S S S S S S S S S S S S S S	SCENARIO 1	SCENARIO 2	SCENARIO 3	SCENARIO 4	SCENARIO 5	SCENARIO 6	SCENARIO 1	SCENARIO 2	SCENARIO 3	SCENARIO 4	SCENARIO 5	SCENARIO 6
	TIOS		TIOS	TIOS	TIOS	AIR-PART	0 (TIOS	SOIL	SOIL	SOIL	AIR-PART	-
	TAURO		DERMAL	TARO	DERHAL	INHALATION	•	ORAL	DERHAL	ORAL	DERMAL	NOITALANI	0 (
CHEMICAL	BHYN	(FROM WS1)	(FRON WS2)	(FROM WS3)	(FROM WS4)	(FROM WS5)	(FROM WS6)	(FROM WS1)	(FROM WS2)	(FROM WS3)	(FRON WS4)	(FROM WS5)	(FROM WS6)
1 ARSENIC		_	X.	0.02+00	N.A.	0.02+00	0.02+00	02+00	AX.	02+00	KA.	.	02+00
2 BARIUM		0.02+00	XX.	0.02+00	KN.	0.02+00		02+00	XN.	02+00	KK.	02+00	
3 BERYLLIUM		0.02+00	XX.	0.02+00	A.S.	0.02+00		* 0E+00	K Y	02+00	KN.	X.	
4 CADMIUM		0.02+00	0.02+00	0.02+00	0.01100	0.02+00		X.	X.	KN	*	X.	
S CADATON	(WAIZK	0.01+00	0.02+00	0.05+00	00+30.0	0.02+00		NA NA	¥	2	¥ .	A.N.	
O CHACATON	ā	0.08+00	¥ 2	0.08+00	: Z	0.00+00		00+10	: ×	00+20		02+00	
NICKEL		0.08+00	¥	0.08+00	¥ \$	0.08+00		05+00	2 3	07+00	¥	00+30	
9 NITRATE		0.02+00	¥ (0.03+00	Z.	0.02+00		NA.	₹ :	X .	¥ 1	z ;	
10 NITRITE	-	0.02+00	*	0.02+00	¥	0.02+00		X.	K N	X	ָ גאַ	ָ גאַ	
11 SILVER		0.02+00	×	0.05+00	KY.	0.08+00		0E+00	X.	02+00	KH.	K.	
12 TEALLIUM	2	0.05+00	×	0.08+00	XX.	0.05+00		02+00	KK.	02+00	KN	X.	
HOLDVAVA CI	2	0.08+00	X	0.08+00	¥	0.02+00		02+00	X.	02+00	KK.	KS.	
Te ACETONS		0.00	£ 3	0.00100	4. Y	0.02+00		UB+00		00+30	¥ %	ı X	
16 CARBON DISULFI	DISULFI	0.03+00	Z.	0.08+00	X.	0.02+00		00+30	N :	00+30	¥ :	02+00	
17 STHYLBENSENS	HZENE	0.03+00	KN	0.02+00	X.	0.02+00		02+00	KN.	02+00	K	08+00	
18 HETHYLISOBUTYL	TALDEOS	0.02+00	K	0.03+00	XX.	0.05+00		02+00	X.	02+00	KK.	02+00	
19 TOLUENE		0.02+00	X.	0.05+00	X.	0.02+00		02+00		02+00	NA.	02+00	
TOTAL PROPERTY OF	3-DIMPROVED TOTAL	0.05400	E 2	0.08400	E 2	0.02+00		08+00	5 3	000	¥ \$	000	
22 1,3-DIH	1-DIMETRYLBE	0.05+00	¥ ;	0.02+00	XX :	0.02+00		02+00	¥ :	02+00	¥ ;	08+00	
23 2,4-DIH	, 4-DIMETHYLPH	0.02+00	VN	0.02+00	N.	0.02+00		00+30	KN	02+00	KH.	A.K	
24 2-METHY	-METHYLNAPHTH	0.02+00	K N	0.02+00	A.	0.02+00		02+00	A.	02+00	KN.	AN.	
. ~	TONSHAT	0.05+00	X.	0.05+00	A.	0.08+00		Y.N	X.	X.	KH	XN.	
26 ACENAPHTHENE	THENB	0.03+00		0.01+00	N.A.	0.02+00		0E+00	X X	08+00	NA.	¥ :	
26 BENEO (a)	(a) ANTH	0.08+00	X	0.02+00	F i	0.05+00		02+00	2 3	0N+00	¥	¥	
29 BENZO [(a) PYRE	0.02+00	YN	0.02+00	YN.	0.02+00		02+00	K.	02+00	KK	K.	
BENZO	[p] Truo	0.05+00	X.	0.02+00	A.	0.02+00		0E+00	NA.	08+00	XX.	AN	
BENZO	[9,5,1]	0.03+00	: ≥	0.08+00	i k	0.08+00		02+00	XX	01100	, AM	XX.	
33 BIR (2-RTHTLHR	SHITTETS-	0.08+00	.	0.08+00	X X	0.05+00		08+00	2 3	05400	¥ 3	¥ \$	
_	a	0.05+00	X.	0.05+00	*	0.05+00		02+00	KK	02+00	KX :	KK :	
35 DIBENS (a,h)	[a,h] A	0.05+00	×	0.02+00	YX	0.02+00		02+00	XX	02+00	KN.	XX.	
36 FLUORANTEENE	THENE	0.05+00	¥	0.05+00	A.N.	0.02+00		02+00	XX.	02+00	K.	KN.	
37 FLOORENE	, 3	0.03+00	¥.	0.01100	X	0.02+00		0E+00	X.	02+00	KN	. AN	
38 INDENO [1,2,3-	[1,2,3-	0.08+00	ZX.	0.08+00	K	0.03+00		02+00	¥	02+00	X.	. NA	
39 NAPHTHALENB	LENB	0.03+00	Z,	0.02+00	K	0.08+00		08+00	*	02+00	X.	XX.	
40 PHENANTERENS	HRENE	0.02+00	2	0.05+00	**	0.03+00		02+00	X,	08+00	×	XX	
TONNER 19)	0.08+00	: ;	0.08+00	. X	0.08+00		00+30	i X	00+20	: ×	, A	
44 FINEND		0.05700	200	0.05700	22	0.00		06+00	25	05100		2)

SUBCERONIC RISK SUMMARY

CURRENT MAINT. WORKER

SITE NAME: CAMERON STATION
OPERABLE UNIT: DISK 2
FILE NAME: POP3
LAST UPDATED: 06/04/92

				61	6	7 U	57	56	, U	: 5	52	51	5	5 6	: :	: :	G	=	5
	, [‡] ,			TRICHLOROFLUOR	2-(2,4,5-TRICH	2,4,5-TRICHLOR	PCB 1260	METHOXYCHLOR	LINDANE / GAMA	HEPTACHLOR	GAMMA-CHLORDAN	DIELDRIN	BETA-ENDOSULFA	BENZOIC ACTO	ALIPHA CHLORUAN	ALDRIN	2,2-BIS (PARA-		
	·			0.02+00	2.58-09	2.58-09	1.25-08	0.08+00	0-02+00	1.28-09	2.62-09	9.7E-10	0.02+00	0.08+00	2.38-09	0.02+00	2.78-09	1.4E-09	5.4E-09
	·			ž	X X	4 A	7.52-08	XX :	2 2	XX	KH.	XX	¥ ;	2 3	.	3	X.	K.	KX.
a e e e e e e e e e e e e e e e e e e e				0.02+00	0.08+00	0.02+00	1.18-08	3.12-08	1.42-09	4.7E-10	6.7E-09	2.02-09	1.12-08	0.08400	6.28-09	0.02+00	1.8E-07	1.1E-07	5.8E-07
				X.	¥ 3	K.	6.6E-08	¥ ;	£ %	×	V H	K N	¥	E 2	: :	×	AN	X.	KN.
		POPULATION TOTAL	PATHWAY SUM (HI)	0.02+00	0.08+00	0.08+00	4.08-12	1.18-11	0.04+00 0.1H-113	1.78-13	2.5E-12	7.45-13	4.0E-12		2.38-12	0.03+00	6.72-11	3.9E-11	2.12-10
		1E-03	18-04	02+00	3E-07	28-08	YN	08+00	AN AN	22-06	4E-05	2E-05	02+00	00+30	48-05	02+00	N.A	KN	1E-05
			02+00	AN	Z 3	KK KK	, AN	¥ 3	¥ \$	N.A	KN	N :	Z 3	: 3	X.	AN.	AN	, AN	×
			12-03	02+00	011	08+00	K.	681-06 61-06	Z X	95-07	12-04	4E-05	58-05	08+00	1E-04	02+00	KX	¥	1E-03
			02+00	KK KK	3	.	*	¥	! \$	*	ž,	₹ ;	Z 3	: 3	¥	K.	KN	K	X.
			02+00	02+00	¥	¥	K.	¥ 3	K.	N.	N.	z :	Z 2		×	KN.	K.	A.	N.
			02+0																

E+00

CHRONIC EXPOSURE SUMMARY

CURRENT WORKER

MAINT.

MITRITI SILVER HITRATE MICKEL CHROMIUM CADMIUM (WATER CADMIUM (FOOD HERCURY BERYLLIUM Barium ARSENIC CHEMICAL NAME OF THE OWNER (FROM WS1) ORAL TIOS **FENCELINE** SCENARIO 0.02+00 0.03+00 0.02+00 0.02+00 0.0E+00 0.08+00 0.02+00 0.0E+00 0.02+00 SCENARIO TIOS (FROM WS2) DERMAL PENCELINE 0.02+00 (FROM WS3) OR I TIOS BLDG-30 SCENARIO 0.02+00 0.02+00 0.02+00 0.02+00 0.02+00 0.02+00 0.02+00 0.02+00 0.05+00 0.0E+00 TIOS BLDG-30 (FROM WS4) DERHAL SCENARIO (FROM WS5) NOITALIANI AIR-PART BLDG-30 SCENARIO 5 0.02+00 0.02+00 0.02+00 0.02+00 0.02+00 0.02+00 0.02+00 0.02+00 0.0E+00 0.02+00 SCENARIO (FROM WS6) 0.0E+00 OR. TIOS FENCELINE (FROM WS1) SCENARIO 0E+00 02+00 0E+00 05+00 0E+00 02+00 02+00 0E+00 05+00 02+00 TIOS DERMAL (FROM WS2) PENCELINE SCENARIO 2 0E+00 HAZARD QUOTIENT 2 SOIL (FROM WS3) BLDG-30 SCENARIO 3 00 + 00 00 + 00 00 + 00 02+00 02+00 00+30 02+00 08+00 02+00 02+00 02+00 TIOS (FROM WS4) DERWAL BLDG-30 SCENARIO 02+00 (FROM WS5) AIR-PART NOITALIANI BLDG-30 SCENARIO 5 0E+00 00+00 00+30 SCENARIO (FROM WS6)

17

ETHYLBENZENS CARBON DISULFI

0.08+00 0.08+00 0.02+00

1,2-DIMETHYLBS

0.02+00

0.05+00 0.02+00 0.05+00

0.02+00 0.0E+00

02+00

0E+00 06+00 0E+00 02+00 0E+00 0E+00 0E+00 0E+00 0E+00

0.08+00

0.02+00

BENZENS ACETONE

MULTIVEL

0.02+00

0.02+00

0.02+00

0.05+00 0.02+00 0.02+00

0.0E+00 0.02+00 0.02+00 0.02+00

02+00

3

0R+00 0R+00

00+00 00+00 00+00

0E+00 02+00 02+00

02+00

0E+00 0E+00 02+00 0.02+00

BENSO [a] ANTH
BENSO [b] FLUO
BENSO [b] FLUO
BENSO [g,h,1]
BENSO [k] FLUO

0.05+00

0.08+00

0.02+00

02+00

08+00 08+00 08+00

0.02+00

0.02+00 0.02+00 0.02+00

0.02+00

0.05+00

0.02+00

0.02+00

0.02+00 0.02+00 ANTERACENE ACENAPHTHENS 2-METHYLPHENOL 2-KETHYLNAPHTH 2,4-DIMETHYLPH 1,3-DIMETRYLBE XYLENES, TOTAL TOLUENE TALIBOSITABLE TAN

0.02+00 0.05+00 0.02+00

0.05+00

FLUORANTHENE DIBENS [a,h] A CHRYSENE BIS (2-ETHYLHE

> 0.05+00 0.08+00 0.05+00 0.05+00

0.02+00 0.08+00

0.08+00

0.02+00

0.02+00

0.08+00

0E+00 0E+00 02+00 02+00 0E+00 0E+00 0E+00 0E+00 0E+00 00+00 0E+00 0E+00

0.05+00 0.08+00 0.02+00

0.05+00 0.08+00

0.05+00

PYRENE TONZEG PHENANTERENE MAPHTHALENE INDENO [1,2,3-

> CHRONIC RISK SUMMARY

HAINT. WORKER

LAST UPDATED: 06/04/92

SITE NAME: CAMERON STATION OPERABLE UNIT: DISK 2 FILE NAME: POP3

			1 TRICHLOROFLUOR	0 2-(2,4,5-TRICH	9 2,4-DICHLOROPH	8 2.4.5-TRICHLOR	6 HZTHOXYCHLOR	S LINDANE / GAMA	4 HEPTACHLOR EPO	2 GAMMA-CHLORDAN	1 DIELDRIN	0 BETA-ENDOSULFA	9 BENZOIC-ACID	ALPHA CHLORDAN	6 ALDRIN	5 2,2-BIS (PARA-		3 2,2-BIS (PARA-
			0.02+00	2.52-09	9.32-09	2.5E-08	0.02+00	0.02+00	4.92-10	2.6E-09	9.7E-10	0.05+00	0.08+00	2.38-09	0.02+00	2.7E-09	1.4E-09	5.48-09
			ş	KX	X I	7.58-08	A.N.	K.	Z Z	: Z	A.A.	AN .	2 3	: E	X.	KN.	KN	X.
			0.02+00	0.02+00	0.03+00	0.08+00	3.12-08	0.08+00	1.42-09	6.72-09	2.02-09	1.15-08	0.08+00	6.22-09	0.02+00	1.82-07	1.12-07	5.8E-07
			X.	K.	¥ ;	6.6E-08	K N	XN.	3 3	K.Y.	¥	X.	× ×	X.	A.N.	X.	AN.	XX.
	POPULATION TOTAL	PATHWAY SUM (HI)	0.02+00	0.02+00	0.00+00	0.08+00	1.15-11	0.02+00	1.7E-13 5.1E-13	2.58-12	7.42-13	4.08-12	0-08+00	2.3E-12	0.02+00	6.7E-11	3.92-11	2.1E-10
	2E-03	2E-04	02+00	3E-07	9E-07	NA NA	02+00	00+80	28105	42-05	28-05	00+00	00+20	4E-05	0E+00	A.	¥.	1E-05
		0E+00	AN	K.	3	N	KN	¥ \$	¥	AN	N.	× 3	¥ ¥	K.	XN.	KK :	X	ž
		22-03	02+00	02+00	08+00	AN AN	90-29	0B+00	98-07	18-04	48-05	28-04	00+30	1E-04	08+00	X	 	16-03
		05+00	ž	¥ :	¥ \$. .	X .	¥	3 3	X.	¥ !	Z 3	. K	X	ž	¥ ;	F :	K.
		02+00	02+00	\$	¥	¥ ¥	K.	ž 3	¥ ¥	XX.	¥ !	Z 3	K I	KN	K N	¥.	Z ;	¥.
		0																

6698368888

0E+00

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SITE NAME: CAMERON STATION
OPERABLE UNIT: DISK 2
FILE NAME: POP3
LAST UPDATED: 06/04/92

LIFETIME EXPOSURE SUMMARY

CURRENT MAINT. WORKER

LIFETIME RISK SUMMARY

CURRENT HAINT. NORKER

*	3	3	25	,,,,		0.00	5	0.00100	3	0.00.00	AL FINEMA	
į	: }	5 5)	0.00		0.04.00	E :	0.00100	12 PARGAL	
: A	: ;		: ;					0.04100	E .	0.04400		
ž	¥	Y.	*	N.		0.02+00	*	0.02+00	XX.	0.05+00	40 PHENANTERENS	
*	\$	¥	KK KK	XN.		0.02+00	XX.	0.02+00	XX.	0.02+00	39 NAPHTHALBUS	
XX.	. NA	02+00	X.	00+30		0.02+00	XX.	0.02+00	X.A.		38 INDERO (1,2,3-	
XX	*	3	7			0.02400	22	0.05400	3			
3	: }	3	: 3						¥ .		11 PT TODAY	
; ;	= ;			E .		0.04100	E	0 00100	× 1			
¥ ;	X	07+00	¥ .	02+00		0.02+00	×.	0.05+00	4	-	35 DIBERT (a.h) A	
XX.	X	00+00	KK	00+00		0.02+00	AN.	0.02+00	AH	0.02+00	34 CHRYSENE	
7	¥	00+30	K.	0E+00		0.02+00	KN	0.02+00	V K	0.05+00	33 BIS (2-ETHYLHE	
AN	X	02+00	KK	02+00		0.02+00	AN	0.05+00	XX.	0.02+00	32 BENZO [k] FLUO	
X N	¥	KN.	KN	XX.		0.02+00	XN.	0.02+00	K K	0.02+00	31 BENZO [g,h,1]	
VK	¥	08+00	KK	00+30		0.02+00	YN	0.02+00	XX			
XX	X.	0E+00	KN	02+00		0.02+00	XN.	0.02+00	XX		29 BENZO [a] PYRE	
KK	AK	0E+00	A.N.	0E+00		0.02+00	XX.	0.02+00	XX		Ξ	
X.	KX	XX	XN.	X.		0.02+00	XX.	0.02+00	XX.	0.02+00	7 ANTHRA	
AA	*	RA.	KN.	**		0.02+00	NA.	0.02+00	NA.	0.08+00	26 ACENAPHTHENE	
Z,	*	×	×	× ×		0.02+00		0.08+00				
NA.	3	3	22	: 3		0.00	: 3	0.00				
	5 5	5 5	£ ;			0.04400	N.	0.07+00	N .		24 2-WETHYINABHTH	
¥ ;	=	¥ .	Z			0.02+00	2	0.02+00	*		23 2.4-DIMETHYLPH	
AM	\$	*	KN KN	KX.		0.02+00	YK	0.05+00	KN	0.08+00	22 1,3-DIMETHYLES	
XX	¥	¥	KK	X.		0.02+00	XN.	0.02+00	KN KN	0.05+00	21 1,2-DIMSTRYLBE	
NA	¥	×	XX	XX.		0.02+00	K.	0.02+00	X.	0.08+00	20 XYLENES, TOTAL	
XX.	X	¥.	K.	XX.		0.02+00	AN	0.02+00	NA.	0.08+00	TA JOHNENE	
XX.	¥	KN	K.	XX.		0.02+00		0.05+00	7	_	18 METHILLSOBUTIL	
3	*		×	NA.		0.02100		0.05100			A DIGITODNESSED	
27	3	3	; ;			0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	E		17 PREVIOUS DECOME	
	5 5		£ 3	E .		0.02+00	2	0.08+00	¥ >		16 CARBON DISHLET	
08+00		08+00	N I	02+00		0.02+00	¥	0.03+00	KN	0.02+00	15 BENZENE	
*	*	¥	4 5	4		0.02+00	KN	0.08+00	KK	0.08+00	14 ACETONE	
N.	¥	K	XX.	NA.		0.02+00	K N	0.02+00	K	0.02+00	NOIDANAY EI	
NA.	¥	¥	¥	XX.		0.02+00	X.	0.02+00	X.	0.02+00	12 THALLIUM	
¥	¥	¥		A.A.		0.02+00	×	0.02+00	XX	0.05+00	11 SILVER	
KN.	¥	¥	¥	N.A.		0.02+00	KX	0.02+00	XN.	0.02+00	10 NITRITE	
Y.	XX.	*	. AN	AN.		0.02+00	KH	0.02+00	**	0.08+00	9 NITRATE	
XX	¥	KY.	XX.	N.		0.02+00	X.	0.02+00	XX	0.02+00	BUICKEL	
XX	¥	¥	XN.	YN.		0.02+00	AN	0.02+00	AN	0.02+00	7 MERCURY	
02+00	¥	¥	K N	AN		0.02+00	XX.	0.05+00	X.	0.02+00	6 CERONIUM	
020+00	¥	K	KK	X.		0.02+00	0.02+00	0.02+00	0.02+00		5 CADMIUM (WATER	
02+00	K.	XX	AN	AN.		0.02+00	0.02+00	0.02+00	0.02+00			
02+00	¥	02+00	Y.K	00+30		0.02+00	AN	0.02+00	XX.	0.02+00		
XX	¥	X.	NA.	NA.		0.0E+00	XN.	0.02+00	NA.	0.05+00	2 BARIUM	
Ü	XX.	02+00	KN	0E+00	0.02+00	0.02+00	XN.	0.02+00	X.	0.02+00	1 ARSENIC	
(FROM WS5) (FROM WS6)	(FROM WS4) (FI	(FRON WS3)	(FROM WS2)	(FROM WS1)	(FROM WS6)	(FROM WS5)	(FROM WS4)	(FROM WS3)	(FROM WS2)	(FROM WS1)	CHEMICAL NAME	
0 NOITALANI	DERMAL IN	ORAL	DERMAL	ORAL		INHALATION	DERMAL	ORAL	DERMAL	ORAL		
AIR-PART 0	IIV TIOS	TIOS	TIOS	TIOS	•	AIR-PART	TIOS	TIOS	1108	1108		
BLDG-30 0	BLDG-30 . BL	BLDG-30	FENCELINE	FENCELINE		BLDG-30	BLDG-30	BLDG-30	FENCELINE	FENCELINE		
SCENARIO 5 SCENARIO 6	SCENARIO 4 SCI	SCENARIO 3	SCENARIO 2	SCENARIO 1	SCENARIO 6	SCENARIO 5	SCENARIO 4	SCENARIO 3	SCENARIO 2	SCENARIO I		
	CANCER RISK	LIFETIME EXCESS CA	LEATT				/har governe	STATE OF THE PARTY STATE OF THE PARTY OF THE	200000000000000000000000000000000000000	200		
								,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				

a* , ,

		61 TRICHLOROFLUOR	60 2-(2,4,5-TRICE	59 2,4-DICHLOROPH	58 2,4,5-TRICHLOR	57 PCB 1260	56 METHOXYCHLOR	55 LINDANE / GAMA	54 HEPTACHLOR EPO	53 HEPTACHLOR	52 GAMMA-CHLORDAN	51 DIELDRIN	50 BETA-ENDOSULPA	49 BENZOIC ACID	46 BENZALDBEYDS	47 ALPHA CHLORDAN	46 ALDRIN	45 2,2-BIS (PARA-	44 2,2-BIS (PARA-	
		0.02+00	3.6E-10	1.3E-09	3.5E-10	1.8E-09	0.02+00	0.02+00	6.9E-11	1.72-10	3.7E-10	1.4E-10	0.02+00	0.02+00	0.02+00	3.2E-10	0.02+00	3.82-10	2.08-10	7.7E-10
		¥	A.	AN	X	1.1E-08	A.	AN	X.	KN	K	V N	K N	AN	A.	X.	KN	KN	KN	A N
		0.02+00	0.02+00	0.02+00	0.08+00	1.52-09	4.42-09	0.02+00	2.02-10	6.6E-11	9.5E-10	2.9E-10	1.5E-09	0.02+00	0.02+00	8.7E-10	0.02+00	2.6E-08	1.5E-08	8.1E-08
		XX	X.	X.	XX	9.2E-09	X N	NA.	V N	KN	X.	AN	X N	Z,	K N	X.	, va	X.	AN.	X.
POPULATION TOTAL EXCESS RISK	TOTAL PATHWAY CANCER RISK	0.02+00	0.02+00	0.02+00	0.08+00	5.5E-13	1.6E-12	0.02+00	7.1E-14	2.42-14	3.4E-13	1.02-13	5.52-13	0.02+00	0.02+00	3.12-13	0.02+00	9.3E-12	5.4E-12	2.98-11
2E-07	1E-08	X.	K N	A.	X	1E-08	AN.	02+00	6E-10	8E-10	5E-10	2E-09	A.	KK	K K	4E-10	02+00	9E-11	72-11	3E-10
	8E-08	KN.	X.	KN	X.	8E-08	KN	KN	K.	A.	AN	X.	AN	XX	A.	AN.	K.	X	ΧN	XX
	62-08	¥	X.	XX.	A.A.	1E-08	¥	02+00	28-09	3E-10	1E-09	5 E-09	XX	X.	¥	1E-09	02+00	68-09	52-09	3E-08
	72-08	¥	X.	KK KK	X.	78-08	¥	¥	\$	¥	¥	¥	K	KN	¥	X.	¥	¥	æ	X.
	12-11	, AN	¥	XX	X.	¥	KN	KN	00+00	00+30	0E+00	2E-12	X.	X	¥	00+20	0Z+00	¥	¥	12-11
	•																			

SUBCHRONIC EXPOSURE SUMMARY

CURRENT CHILD (CL)

			SUBCHRONIC	SUBCHRONIC DAILY INTAKE	(mg/kg/day)				SUBCHRON	SUBCHRONIC HAZARD QUOTIENT	TIENT		
		SCENARIO 1	SCENARIO 2	SCENARIO 3	SCENARIO 4	SCENARIO 5	SCENARIO 6	SCENARIO 1	SCENARIO 2	SCENARIO 3	SCENARIO 4	SCENARIO 5	SCENARIO 6
		CAH-LAKE	CAH-LAKE	CAM-LAKE	CAM-LAKE	CAH-LARE	CAH-LAKE	CAM-LAKE	CVH-TVKE	CAM-LAKE	CVH-IVKE	CVH-TYKE	CAM-LAKE
		NOITAIANI	NOITALIANI	ORAL	DERMAI.	ORAL.	DERMAT.	INHITATION	INHALATION OCCUPANT	ORAL PALES	DERMAT.	ORAT.	DEBMAL
	CHEMICAL NAME	(FROM WS1)	(FROH WS2)	(FROM WS3)	(FROM WS4)	(FROM NSS)	(FROM WS6)	(FROM WS1)	(FROM WS2)	(FROM WS3)	#S4)	(FROM WS5)	(FROM WS6)
-	ARSENIC	0.02+00	0.02+00	5.4E-08	4.8E-09	4.5E-07	X.	X.	N.	22-04	22-05	22-03	XX.
N	BARIUM	5.8E-10	0.02+00	5.38-07	4.7E-08	2.52-06	A.	6E-07	02+00	8E-06	72-06	4E-05	XX.
w	BERYLLIUM	9.3E-12	0.02+00	0.02+00	0.05+00	2.2E-07	X.	XX.	KK	0E+00	02+00	48-05	X.
~	CADMIUM (FOOD)	0.02+00	0.02+00	0.02+00	0.0E+00	1.8E-08	8.0E-09	KN.	ž	KN KN	K,	A.N	AN
u	CADMIUM (WATER	0.02+00	0.02+00	8.0E-08	7.1E-09	0.02+00	0.02+00	KN	¥.	X.	K.	X.	X.
•	CHROMIUM	1.1E-10	0.02+00	1.4E-07	1.2E-08	1.72-06	N.	2E-05	0E+00	7E-06	1E-05	98-05	N.
7	MERCURY	0.02+00	0.02+00	6.7E-09	5.92-10	1.6E-09	NA.	02+00	0E+00	22-05	12-05	5E-06	XX
•	NICKEL	2.6E-11	0.02+00	5.76-07	5.0E-08	2.9E-07	AN	X.	X.	3E-05	52-05	12-05	Y.K
9	NITRATE	0.02+00	0.02+00	8.7E-06	7.7E-07	0.02+00	X.	YN	¥	AN	XX	XN.	X.
6	MITRITE	0.02+00	0.02+00	9.92-08	8.8E-09	0.02+00	AN	AN	¥	AN	AN	×	X.
11	SILVER	0.02+00	0.08+00	8.82-09	7.8E-10	1.9E-08	AN	X.	¥	2E-06	58-07	4E-06	XX
12	MULTIVEE	0.05+00	0.02+00	0.03+00	0.0E+00	0.02+00	AN	YN	X.	02+00	08+00	02+00	X.
13	HUIDAMAY	1.1E-10	0.02+00	0.02+00	0.0E+00	0.02+00	NA.	KN	X.	02+00	02+00	02+00	KN
1	ACETONE	4.2E-12	8.9E-18	9.02-08	4.62-09	2.22-08	X.	KN	X.	92-08	52-09	22-08	X.
5	BENTENS	4.2E-12	6.22-20	0.03+00	0.02+00	0.02+00	X.	XX.	XX.	*	N.	XX.	K
16	CARBON DISULFI	0.02+00	0.05+00	0.02+00	0.02+00	0.02+00	NA.	00+30	00+30	00+30	00+30	00+30	X
7	BTHYLBENZENE	4.2E-12	2.98-21	0.02+00	0.02+00	0.08+00	2	1E-11	00+30	00+30	00+80	00+00	: ×
-	WEINGOOTH THESE	4.45-14	1.15-21	0.05100	0.00100	0.05100	3	11-01	0 0 0 0 0	0 P 1 0 0	05400	0000	5
3 5	TOLUENE	30-13	1.15-20	0.05+00	0.00+00	0.08+00	e a	58-11	05+00	00+00	04+00	08+00	, N
2 :	1 2 DIMETRYLER	0.07+00	0.08+00	0.02+00	0.02+00	0.02+00	X	02+00	02+00	02+00	02+00	02+00	¥ ;
22	1.3-DIMETHYLBE	0.05+00	0.02+00	0.08+00	0.02+00	0.02+00	KN.	06+00	02+00	02+00	02+00	02+00	XX.
23	2,4-DIMETHYLPH	0.02+00	0.08+00	0.02+00	0.05+00	0.02+00	ĸ	. NA	KN.	02+00	02+00	02+00	X.
24	2-METHYLNAPHTH	2.38-12	0.02+00	0.02+00	0.02+00	0.02+00	AN	KN.	KK K	05+00	¥	05+00	AN
25	2-METHYLPHENOL	0.02+00	0.0E+00	0.05+00	0.0E+00	0.02+00	. AN	N.	¥.	AN	AN	KN	K.
26	ACENAPHTHENE	2.35-12	0.02+00	0.03+00	0.02+00	1.1E-08	AN	XN.	XX	0E+00	XX.	22-08	X.
27	ANTHRACENS	2.38-12	0.05+00	0.02+00	0.02+00	1.42-08	XX	XX.	X.	02+00	¥	5E-09	X.
28	BENZO [a] ANTE	1.5B-11	0.02+00	0.02+00	0.02+00	3.1E-08	A.N	X.	K.	02+00	KN.	12-07	K N
29	BENZO (a) PYRE	6.0E-12	0.02+00	0.08+00	0.02+00	2.6E-08	XX	XN.	¥.	00+30	XX.	98-08	AN
30	BENZO [b] FLUO	6.0E-12	0.02+00	0.05+00	0.02+00	3.4E-08	X.	XN.	XN.	02+00	X.	18-07	X.
31	BENZO [g,h,i]	2.98-12	0.02+00	0.03+00	0.02+00	0.02+00	AN	X.N	XX.	02+00	X	08+00	NA.
32	BENZO [k] FLUO	6.08-12	0.08+00	0.03+00	0.02+00	3.22-08	X.	XX	¥	02+00	, A	18-07	NA.
3	BIS (2-STRYLEE	2.3E-12	0.02+00	1.5E-07	4.5E-07	3.82-08	. X	. ×	¥	82-06	28-05	22-06	×
3	CERTSENS	7.55-12	0.02+00	0.08+00	0.00+00	3.72-08	. X	, NA		200	: 3	18-07	NA.
. 5	DIBERT (a,n) A	0.05+00	0.08+00	0.05100	0.00	0.08+00	. 3	: ×	:	01100	£ 3	28-07	NA AN
9 6	FLUORANTHENS	1.45-11	0.05+00	0.08+00	0.00	0. 0 H - C 0	: X	¥ \$	£ 3	01100	5 3	. 25-07	NA AN
: :	PLUCKENS	2.35-12	0.08+00	0.00100	0.01100	1 1 1 1 0 0	5 3	E 22	E 3	0 0 0 0	5 3		E 2
9 0	MADETHALENE	2.38-12	1.18-22	0.08+00	0.08+00	0.08+00	¥ \$	X XX	ž 3	00+80	F §	02+00	¥ 3
6	PHENANTERENS	1.35-11	0.02+00	0.02+00	0.02+00	5.62-08	X.	XN.	¥	02+00	K.	25-07	A.
=	PHENOL	0.02+00	0.02+00.	0.02+00	0.02+00	0.02+00	KN	X.	K.	02+00	02+00	08+00	N.
2	PYRENE	1.5E-11	0.02+00	0.02+00	0.02+00	6.7E-08	¥	YN	¥	00+20	XX.	28-07	X.
)

A.W.

SUBCHRONIC RISK SUMMARY

CHILD (CL)

SITE NAME: CAMERON STATION
OPERABLE UNIT: DISK 3
FILE NAME: POP1
LAST UPDATED: 06/05/92

					4E-03	POPULATION TOTAL	FINGOS					.,
0E+00	28-03	25-03	3E-04	0E+00	2E-05	PATHWAY SUM (HI)	PATHWA					
ΑN	08+00	02+00	02+00	02+00	00+00	ž	0.02+00	0.02+00	0.02+00	0.02+00	0.05+00	1 TRICHLOROFLOOK
X.	00+30		00+30	X.	×	X.	0.02+00		0.02+00	0.02+00	0.08+00	0 2-(2,4,5-TRICE
X.	02+00	08+00	00+30	ĸĸ	N.A.	×	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	2,4-DICHLOROPH
KN	00+00	XX	02+00	KN	K	X.	0.02+00	N.	0.02+00	0.02+00	0.02+00	8 Z,4,5-TRICHLOR
N.	KX	KN	K N	K N	K	0.0E+00	0.02+00	0.02+00	0.02+00	0.02+00	1.2E-11	7 PCB 1260
N.	021+00	02+00	00+30	NA.	KN.	X.	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	6 METHOXYCHLOR
N.	02+00	02+00	02+00	A.	XX	A.	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	5 LINDANE / GAMA
K N	KN	×	K.	KN.	K.	X.	0.02+00	0.02+00	0.02+00	0.02+00	1.28-11	4 HEPTACHLOR EPO
×	02+00	02+00	0E+00	N.	KN	KN	0.02+00	0.02+00	0.02+00	0.02+00	1.2E-11	3 HEPTACHLOR
X X	0E+00	6E-05	72-06	ΑN	XX.	K	0.02+00	3.5E-09	4.1E-10	0.02+00	0.0E+00	2 GAMMA-CELORDAN
X.	0E+00	02+00	02+00	AN	KX	X.	0.02+00	0.02+00	0.02+00	0.0E+00	1.28-11	DIELDRIN
NA.	02+00	02+00	0E+00	NA.	X.	V N	0.02+00	0.02+00	0.02+00	0.0E+00	0.02+00	O BETA-ENDOSULFA
N.	3E-09	5E-08	85-08	X.	KX	ΝX	1.32-08	2.1E-07	3.2E-07	0.02+00	0.02+00	9 BENZOIC ACID
×	02+00	02+00	00+00	NA.	K.	X.	0.02+00	0.02+00	0.02+00	0.0E+00	0.02+00	S BENIALDERYDE
X.	08+00	28-03	3E-06	KK	KN.	A.A.	0.02+00	1.4E-07	1.8E-10	0.02+00	0.02+00	ALPHA CHLORDAN
AN.	0E+00	0E+00	0E+00	AN	X.	A.	0.02+00	0.0E+00	0.02+00	0.02+00	0.0E+00	6 ALDRIN
N.	KN KN	¥	×	KN	X	NA.	3.1E-08	1.8E-08	8.5E-10	0.0E+00	1.28-11	S Z,Z-BIS (PAKA-
AN	AN	KN KN	AN.	K.N	AN	AN	3.1E-08	1.9E-08	7.6E-10	0.02+00	1.28-11	4 2,2-815 (PARA-
X.	0E+00	0E+00	0E+00	N.	AN	N.	0.0E+00	0.0E+00	0.0E+00	0.02+00	1.2E-11	3 2,2-BIS (PARA-

CHRONIC EXPOSURE SUMMARY

CURRENT CHILD (CL)

CHRONIC RISK SUMMARY

CURRENT (CL)

SITE NAME: CAMERON STATION
OPERABLE UNIT: DISK 3
FILE NAME: POP1
LAST UPDATED: 06/05/92

((
43 2.2-BIS (PARA- 1	1.2E-11	0.0E+00	0.05+00	0.08+00	2 24	:	:	=	2 2 2	9	2	E 1
2,2-BIS (PARA-	1.2E-11	0.02.00	7.6E-10	1.92-08	3.18-08	¥ 3	2 3	Z 3	NA NA	NA NA	NA NA	¥ 3
2,2-BIS (PARA-	1.2E-11	0.02+00	8.52-10	1.62-08	3.12-08	z ;	¥ ;	z !	3	¥ :	¥ :	¥ :
	0.0E+00	0.02+00	0.02+00	0.02+00	0.08+00	¥ :	¥ ;	¥	0E+00	02+00	0E+00	X.
Ę	0.05+00	0.02+00	1.82-10	1.42-07	0.02+00	A.N.	ĸĸ	ĸ	3E-06	28-03	00+30	N.
49 BENZOIC ACID 0	0.08+00	0.08+00	3.2E-07	2.18-07	1 38-08	Z Z	zz	¥ ¥	9 E + O O	7 CE + OO	02+00	. .
BETA-ENDOSULFA		0.08+00	0.02+00	0.02+00	0.08+00	X :	K K	¥ !	00+30	02+00	0E+00	¥ ;
DIELDRIN		0.02+00	0.02+00	0.02+00	0.02+00	KN.	Z :	¥.	0E+00	02+00	0E+00	NA.
GAMMA-CHLORDAN	0.02+00	0.02+00	4.1E-10	3.52-09	0.02+00	**	K N	K.	7E-06	62-05	00+30	KN
HEPTACHLOR	1.2E-11	0.01+00	0.011+00	0.05+00	0.02+00	. AA	NA NA	×	00+30	08+00	02+00	Y.
SS LINDANE / GAMA O	0.02+00	0.08+00	0.08+00	0.08+00	0.08+00	z x	2 2	i y	05+00	00+00	02+00	2 2
METHOXYCHLOR	0.02+00	0.02+00	0.05+00	0.02+00	0.02+00	Z 3	2 3	3	02+00	08+00	02+00	K K
PCB 1260	1.2E-11	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	Z :	₹ :	KN C	K	AN C	XX :
2,4,5-TRICHLOR	0.02+00	0.02+00	0.02+00	N.	0.02+00	X.	X.	X	0E+00	X.	0E+00	XX :
2,4-DICHLOROPH	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	Z.	Z.	¥ :	00+30	01+00	02+00	A.
2-(2,4,5-TRICH	0.02+00	0.02+00	0.02+00	K.	0.02+00	X	×	K	00+30	¥.	00+30	XX
	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	XN.	02+00	02+00	00+30	0E+00	02+00	X
•					PATHWA	PATHWAY SUM (HI)	2E-04	0E+00	4E-04	22-03	2E-03	36-04
: [POPULA	POPULATION TOTAL	5E-03					
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AA	XX.	X.	×	X.	, NA	X.	5.6E-09	0.02+00	0.02+00	0.02+00	1.35-12	42 PYRENE
A.	XX.	*	XX.	X.	A.A.	XX.	0.02+00	0.02+00	0.02+00	0.02+00	0.0E+00	41 PHENOL
X	XX.	AX	X.	X.	A.	X.	4.7E-09	0.02+00	0.02+00	0.02+00	1.22-12	40 PEENANTHRENE
X	XX.	*	*	N.A.	A.	XX.	0.02+00	0.02+00	0.02+00	9.1E-24	2.05-13	39 NAPHTHALENE
**	6E-10	*	00+30	NA.	, N	*	1.02-09	0.02+00	0.02+00	0.02+00		38 INDENO [1,2,3-
**	, NA	*	A.A.	N.	X	×	1.02-09	0.02+00	0.01+00	0.02+00		37 FLOORENE
*	X	*	XX.	XX.	**	XX.	5.7E-09	0.02+00	0.02+00	0.02+00	1.28-12	36 FLUORANTHENE
X.	02+00	YN.	02+00	NA.	X.	XN.	0.02+00	0.02+00	0.02+00	0.02+00	0.08+00	35 DIBENT (a,h) A
KK	22-10	AN	08+00	A.N.	KN	X.	3.1E-09	0.02+00	0.02+00	0.02+00	6.52-13	34 CHRYSENE
XN.	4E-11	5E-10	28-10	KN.	XX.	X.	3.2E-09	3.92-08	1.42-08	0.02+00	2.0E-13	33 BIS (2-ETHYLHE
Y.	2E-09	XX.	02+00	AN	XX.	NA.	2.7E-09	0.02+00	0.08+00	0.02+00	5.28-13	32 BENZO [k] FLUO
KN.	XX.	XX.	AN	AN	Y.N	KK.	0.02+00	0.02+00	0.05+00	0.02+00		31 BENZO [g,h,i]
X.	22-09	AN AN	02+00	AN.	N.	AN	2.8E-09	0.02+00	0.02+00	0.02+00	5.28-13	30 BENEO (b) FLUO
AN	1B-08	KN.	02+00	X.	XX.	A.	2.28-09	0.02+00	0.02+00	0.02+00	5.28-13	29 BENZO [a] PYRE
NA.	12-09	KH	02+00	AN.	N.A.	AN	2.6E-09	0.0E+00	0.02+00	0.08+00	1.38-12	28 BENZO (a) ANTE
KN.	*	X.	XX.	N.	AN.	NA.	1.28-09	0.02+00	0.02+00	0.02+00	2.05-13	27 ANTERACENE
XN.	XX.	KK	. AX	AN	AN	NA.	9.22-10	0.02+00	0.05+00	0.02+00	· 2.0E-13	26 ACENAPHTHENE
AN	XX.	XX.	X.	. AN	X.	A.A.	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	25 2-METHYLPHENOL
XX	NA.	XX.	X	AN	AN.	KN.	0.02+00	0.02+00	0.02+00	0.02+00	1 2.0E-13	24 2-METHYLNAPHTH
NA.	XX.	XX.	KN	XX	KK	AN	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	23 2,4-DIMETHYLPH
K.	X.	XX.	. AN	XN.	XX.	NA.	0.02+00	0.02+00	0.02+00	0.02+00	0.0E+00	22 1,3-DIMETHYLBE
N.		KN.	NA.	AN	K K	AN	0.02+00	0.02+00	0.02+00	0.02+00	••	21 1,2-DIMETHYLBS
NA.	X.	XH.	K.	KN.	XX.	AN	0.02+00	0.02+00	0.02+00	3.5E-21	3.78-13	20 XYLENES, TOTAL
K	X.	X.	X.	. NA	**	KN	0.02+00	0.0E+00	0.0E+00	9.92-22	3.7E-13	19 TOLUENE
XX.	XN.	K N	A.A.	WN	**	X.	0.02+00	0.02+00	0.02+00	9.9E-23	3.78-13	18 METHYLISOBUTYL
K	X.	KN	KN	KN	KN	X.	0.02+00	0.0E+00	0.02+00	2.5E-22	3.7E-13	17 STHYLBENZENS
K	X.	KK	KN	AN.	YK.	X.	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	16 CARBON DISULFI
K N	0E+00	02+00	02+00	0E+00	02+00	KN	0.02+00	0.02+00	0.02+00	5.38-21	3.7E-13	15 DENZENS
KN	KK.	KK KK	XN.	YN	Y.N	N.	1.92-09	4.0E-10	. 1.0E-09	7.7E-19	3.76-13	14 ACETONE
A.	K.	KN	KN.	KN	XX.	X.	0.02+00	0.02+00	0.05+00	0.02+00	9.18-12	HOIDVNVA ET
XN.	KN.	XX.	YN.	N.	N.A.	KN.	0.02+00	0.02+00	0.0E+00	0.02+00	0.05+00	12 THALLIUM
N.	æ	K.	KN.	KN	YN .	X.	1.62-09	6.82-11	7.85-10	0.02+00	0.02+00	11 SILVER
. AN	KK	N.	XN.	AN	KK.	A.A.	0.02+00	7.7E-10	8.8E-09	0.0E+00	0.02+00	10 NITRITE
AN.	NA.	X.	XX	XX.	KN	AN.	0.02+00	6.8E-08	7.72-07	0.02+00	0.02+00	9 NITRATE
N.	X.	KN.	KN	K N	4 8	A N	2.48-08	4.4E-09	5.0E-08	0.02+00	2.3E-12	8 NICKEL
X.	X.	KN.	. AN	K N	XX.		1.32-10	5.2E-11	5.98-10	0.02+00	0.02+00	7 MERCURY
A.	X.	K N	KN.	0E+00	4E-10	X.	1.52-07	1.1E-09	1.25-08	0.02+00	9.28-12	6 CHRONIUM
AN	Z	*	KN KN	· 0E+00	0E+00	0.0E+00	0.02+00	6.2E-10	7.1E-09	0.0E+00	0.02+00	5 CADMIUM (WATER
¥	KN.	4	XX.	0E+00	0E+00	7.0E-10	1.52-09	0.02+00	0.05+00	0.02+00		4 CADMIUM (FOOD)
A.	80-38	02+00	02+00	0E+00	7E-12	AN.	1.82-08	0.0E+00	0.02+00	0.02+00	8.1E-13	3 BERYLLIUM
X.	Z	*	KK	K K	XX.	AN	2.18-07	4.1E-09	4.7E-08	0.02+00	5.02-11	2 BARIUM
N.	7E-08	72-10	82-09	0E+00	02+00	XX.	3.8E-08	4.2E-10	4.6E-09	0.0E+00	0.02+00	1 ARSENIC
(FROM WS6)	(FRON WS5)	(FROM WS4)	(FROM WS3)	(FROM WS2)	(FROM WS1)	(FROM WS6)	(FROM WSS)	(FROM WS4)	(FROM WS3)	(FROM WS2)	(FROM WS1)	CHENICAL NAME
DERMAL	ORAL	DERHAL.	ORAL	NOITALIANI	NOITALANI	DERMAL	ORAL	DERMAL	ORAL	HALATION	NOITALANI	
SEDIMENT	SEDIMENT	SURF WATER	SURF WATER	AIR-VOC	AIR-PART	SEDIMENT	SEDIMENT	SURP WATER	SURF WATER	AIR-VOC	AIR-PART	
		CAH-LAKE	CAH-LAKE	CAH-LAKE	CAH-LAKE		CAM-LAKE	CAM-LAKE	CAH-LAKE	CAM-LAKE	CAH-LAKB	
SCENARIO 6	SCENARIO 5	SCENARIO 4		SCENARIO 2	SCENARIO 1	SCENARIO 6	SCENARIO 5	SCENARIO 4	SCENARIO 3	SCENARIO 2	SCENARIO 1	
		CANCER RISK	LIFETIME EXCESS CA	LIFETI			kg/day)	INTAKE (mg/	LIFETIME AVERAGE DAILY INTAKE (mg/kg/day)	LIFETIME A		

CURRENT (CL)

LIFETIME EXPOSURE SUMMARY

CURRENT (CL)

7*****, 7

LIFETIME RISK SUMMARY

SITE NAME: CAMERON STATION OPERABLE UNIT: DISK 3 FILE NAME: POP1 LAST UPDATED: 06/05/92

	· · · · ·		<i>a.</i>	59 2,4-DICHLOROPH 60 2-(2,4,5-TRICH 61 TRICHLOROFLUOR		54 HEPTACHLOR EPO 55 LINDANE / GAMA 56 METHOXYCHTOR	52 GAMMA-CHIORDAN 53 HEPTACHLOR	50 BETA-ENDOSULFA		45 2,2-BIS (PARA-	43 2,2-BIS (PARA-
	·			0.02+00	1.02-12	1.02-12 0.02+00	1.02-12	0.02+00	0.02+00	1.02-12	1.0E-12
				0.02+00	0.02+00	0.02+00	0.02+00	0.08+00	0.02+00	0.02+00	0.02+00
		AT .		0.02+00	0.08+00	0.02+00	3.6E-11 0.0E+00	2.9E-08 0.0E+00	1.62-11	7.62-11	0.02+00
				0.0E+00 NA 0.0E+00	0.02+00 0.02+00	0.02+00	3.18-10 0.08+00	1.8E-08	1.32-08	1.62-09	0.0E+00
· .		POPULATION IN	TOTAL PAT	0.0E+00 0.0E+00	0.08+00	0.02+00	0.05+00	1.1E-09 0.0E+00	0.02+00	2.6E-09 2.6E-09	0.0E+00
		POPULATION TOTAL EXCESS RISK	TOTAL PATHWAY CANCER RISK	VN VN VN	0.0E+00 NA		K K K	NN KN	5 5 5	NA NA	N.
		2E-07	4E-10	* * * *	8		2E-11 0E+00	K K	00+30 00+30	NA AN	0E+00
			0E+00	N K K	8 8 8	00+30 NA	08+00	K K	08+00 NA NA	AN AN	0E+00
			8E - 09	K K K	00+20 4.N	00+00	0E+00 5E-11	X XX	02+00 22-11	2E-11 2E-11	00+00
	٠.		26-00	\$ \$ \$ i	0E+00	02+00	0E+00	X X	0E+00 2E-08 NA	6E-10	02+00
·			2E-07	* * * ;	0E+00	00+00 00+00	0E+00	X X ;	02+00 02+00	9E-10 6E-10	0E+00
			02+00	\$	0E+00	× × ×	K K	¥ ¥ ;	* * *	r k	NA
		i	e e e e e e e e e e e e e e e e e e e		٠						

SUBCHRONIC EXPOSURE SUMMARY

CURRENT CHILD (CL-B)

A PINEME		10 FHENRICHNENS		36 INDENO [1,4,3-	3) FEOOREMS		36 FLUORANTHENE	35 DIBENZ (a,h) A	34 CHRYSENE	33 BIS (2-ETHYLHE	32 BENZO [K] FLOO	31 BENZO [g,n,1]				28 BENZO (a) ANTH	27 ANTHRACENE	26 ACENAPHTHENE	25 2-METHYLPHENOL	24 2-METHYLNAPHTH	23 2,4-DIKETHYLPH	22 1,3-DIMETHYLBE	21 1,2-DIMETHYLBE	20 XYLENES, TOTAL	TA TOTOENS	16 METHILLIBOBUTIL	1/ ETHILDENZENS	TO CANDON PERODE	16 CARBON DIGITAL	15 PENSENS	14 ACETONE	HOIDAMAN EL	12 THALLIUM	11 SILVER	10 NITRITE	9 NITRATE	8 NICKEL	7 MERCURY	6 CHROHIUM	5 CADHIUM (WATER	4 CADMIUM (FOOD)	3 BERYLLIUM	2 BARIUM		CHEMICAL NAME (0		C	ا مع	
0.08400	0.05+00	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.08+00	0.05+00	0.00	0.08+00	0.02+00	0.0E+00	0.0E+00	0.02+00	0.08+00	0.08+00	0.00	0.00		0-08+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.0E+00	0.02+00	0.02+00	0.02+00	0.08+00	0.02+00		0.00	0.02+00	0.02+00	0.02+00	0.02+00	1.2E-05	0.05+00	0.02+00	1.2E-03	1.5E-05	1.82-03	0.02+00	6.1E-05	0.0E+00	8.4E-04	0.02+00	(FROM WS1)	ORAL	FISH	æ	SCENARIO 1	
																																	, (1 4)											0.02+00	(FROM WS2)	0	0	0	SCENARIO 2	SUBCHRONIC
							*			•																				•														0.02+00	(FROM WS3)	0	0	0	SCENARIO 3	DAILY INTAKE
																									•																			0.0E+00	(FROM WS4)	0	6	0	SCENARIO 4	SUBCHRONIC DAILY INTAKE (mg/kg/day)
																																										•		0.05+00	(FROM WS5)	0	•	•	SCENARIO 5	-
											•																																	0.02+00	FROM WS61	0	0	0	SCENARIO 6	
00+30	00+30	00+30	00+30	00+30	08+00		08+00	00+20	0E+00	02+00	00+30	02+00	020	02+00	06100		00490	0E+00	N.	02+00	0E+00	00+30	0E+00	0E+00	00+30	0E+00	02+00	02+00	2 2	25.00	05+00	0E+00	00+30	22-03	X.	X.	6E-02	5E-02	9E-02	NA :	×	02+00	1E-02	0E+00	FROM WS1	ORAL		CAM-LAKE (B	SCENARIO 1	
																									•											•								0E+00	LEBON MESS!		5 (0	SCENARIO 2	SUBCHRON
																																												05+00	I SE MORA!	5 (•	0	SCENARIO 3	SUBCHRONIC HAZARD OUGTIENT
																								•																				02+00	TEROM MEAN	· •	.	0	SCENARTO A	CHIENT
																																											6	(150, 1003)	(Show meet)		-	0	SCENIBIO S	
)																																											60.00	(00H HONE)	ABON RECT	> 6	5 6		SCENADIO	

SUBCHRONIC RISK SUMMARY

CURRENT
CHILD (CL-B)

SITE NAME: CAMERON STATION OPERABLE UNIT: DISK 3
FILE NAME: POP2
LAST UPDATED: 06/09/92

60 2-(2,4,5-TRICH 61 TRICHLOROFLUOR	58 2,4,5-TRICHLOR 59 2,4-DICHLOROPH	56 METHOXYCHLOR 57 PCB 1260	LINDANE / G	53 HEPTACHLOR EPO		50 BETA-ENDOSULFA 51 DIELDRIN	49 BENZOIC ACID	48 BENZALDERYDE	47 ALPHA CHLORDAN	46 ALDRIN	45 2,2-BIS (PARA-	44 2,2-BIS (PARA-	43 2,2-BIS (PARA-
0.0E+00 0.0E+00	0.0E+00	0.0E+00 5.1E-05	0.02+00	0.02+00	8.72-06	0.08+00	0.02+00	0.02+00	8.2E-06	0.02+00	3.8E-05	3.1E-05	0.02+00

POPULATION TOTAL PATHWAY SUH (HI)

4E-01

0E+00

0E+00

4E-01

0E+00 0E+00

02+00 0E+00

0E+00

CHRONIC EXPOSURE SUMMARY

CHILD (CL-B)

u	-	w	N		,						
CADHIUM (WATER	CADMIUM (FOOD)		BARIUM		THE STATE OF						
0.0E+00	6.1E-05	0.0E+00	8.4E-04	0.0E+00	(FROM WS1)	ORAL	FISH	CAM-LAKE (B	SCENARIO 1		
				0.0E+00	FROM WS2)	•	•		SCENARIO	CHRONIC DAI	
				0.02+00	(FROM WS3)	0	0	0	SCENARIO 3	CHRONIC DAILY INTAKE (mg/kg/day	CHILD (CL-B)
			•	0.0E+00	(FROH WS4)	0	0	0	2 SCENARIO 3 SCENARIO 4 SCENARIO 5	ig/kg/day)	-
				0.0E+00	(FROM WS5)	0	0	0	SCENARIO 5		
				0.0E+00	(FROM WS6)	0	0	0	SCENARIO 6		
00+30	1E-01	0E+00	1E-02	0E+00	(FROM WS1)	ORAL	FISH	CAM-LAKE (B	SCENARIO 1		
						0	0	0	SCENARIO 2	CHRONIC	
				02+00	(FROM WS3)	0	0	0	SCENARIO 3	CHRONIC HAZARD QUOTIENT	CHILD (CL-B)
				00+30	(FROM WS4)	•	0	0	SCENARIO 4	ENT	_
				0E+00 0E+00 0E+00 0E+00 0E+00	(FROM WS5)	0	0	0	SCENARIO 3 SCENARIO 4 SCENARIO 5 SCENARIO		
				0E+00	(FROM WS6)	0	0	0	SCENARIO 6		

CURRENT

CHRONIC RISK SUMMARY

LAST UPDATED: 06/09/92

SITE NAME: CAMERON STATION OPERABLE UNIT: DISK 3
FILE NAME: POP2

19 TOLUENE 20 XYLENES, TOTAL 21 1,2-DIHETHYLBE 22 1,3-DIHETHYLBE

0.02+00

17 ETHYLBENZENE 18 METHYLISOBUTYL

23 2,4-DIHETHYLPH
24 2-METHYLNAPHTH
25 2-METHYLPHENOL

0.02+00

0.0E+00

0.0E+00 0.0E+00 9 NITRATE
10 NITRITE
11 SILVER
12 THALLIUM
13 VANADIUM
14 ACETONE
15 BENZENE
16 CARBON DISULFI

1.2E-05 0.0E+00 0.0E+00 0.0E+00

0.0E+00 0.0E+00

0.0E+00

0.0E+00

0.0E+00 0.02+00 NICKEL CHROMIUM

4E-01 5E-02 0E+00 0E

26 ACENAPHTHENE
27 ANTHRACENE
28 BENZO [a] PYRE
30 BENZO [b] FLUO
31 BENZO [y,h,i]
32 BENZO [k] FLUO
33 BIS (2-ETHYLHE
34 CHRYSENE
34 CHRYSENE
35 DIBENZ [a,h] A
36 FLUORANTHENE
37 FLUORANTHENE
38 INDENO [1,2,339 NAPHTHALENE
40 PHENANTERNE
41 PHENOL
41 PHENOL

0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00

0.0E+00 0.0E+00 0.0E+00

0.02+00

0.02+00 0.02+00

0.02+00 0.02+00

0E+00 0E+00 0E+00 0E+00

								•											
PATHWAY SUM (HI)																			
10-38	02+00	0E+00	0E+00	0E+00	AN.	05+00	00+30	0E+00	05+00	1E-01	02+00	0E+00	0E+00	0E+00	1E-01	0E+00	AN	NA.	02+00
0E+00					•														
00+00																			
05+00																			

43 2,2-BIS (PARA44 2,2-BIS (PARA45 2,2-BIS (PARA45 ALDRIN
47 ALPHA CHLORDAN
48 BENZALDEHYDE
49 BENZOLC ACID
50 BETA-ENDOSULFA
51 DIELDRIN
52 GAMMA-CHLORDAN
53 HEPTACHLOR
54 HEPTACHLOR EPO
55 LINDANE / GAMA
56 HETHOXYCHLOR
57 PCB 1260
58 2,4,5-TRICHLOROPH
60 2-(2,4,5-TRICH
61 TRICHLOROFLUOR

0.0E+00 3.1E-05 3.8E-05 0.0E+00 0.0E+00

POPULATION TOTAL

8E-01

02+00

0E+00

LIFETIME EXPOSURE SUMMARY

CURRENT CHILD (CL-B)

	SCENARIO 1	SCENARIO 2 SCENARIO 3	SCENARIO 3	SCENARIO 2 SCENARIO 3 SCENARIO 4 SCENA	SCENARIO 5	SCENARIO 6	SCENARIO 1	SCENARIO 1 SCENARIO 2 SCENARIO 3 SCENARIO 4	RIO 2 SCENARIO 3 SCENARIO	SCENARIO 4	SCENARTO 5
	CAH-LAKE (B	0	0	0	0	0	CAH-LAKE (B	0	0	0	
	FISH	0		0	0		FISH	0	0		
	ORAL	0	0	. 0	0	0	ORAL	0	•	·	
CHEMICAL NAME	(FROM WS1)	(FROM WS2)	(FROH WS3)	(FROM WS4)	(FROM WS5)	(FROM WS6)	(FROM WS1)	(FROM WS2)	(FROM WS3)	(FROM WS4)	(FROM WS5)
1 ARSENIC	0.02+00	0.02+00	0.02+00	0.0E+00	0.0E+00	0.0E+00	00+30	0E+00	02+00	0E+00	
2 BARIUM	7.2E-05										
3 BERYLLIUM	0.0E+00						0E+00				
4 CADMIUM (FOOD)	5.3E-06						XX.				
S CADMIUM (WATER	0.0E+00		٧				XX.				
6 CHRONIUM	1.6E-04						KN				
7 MERCURY	1.3E-06						X.				
8 NICKEL	9.9E-05						AN				
9 NITRATE	0.0E+00						NA.				
10 NITRITE	0.02+00						AN.				
11 SILVER	1.1E-06						AN.				
12 TRALLIUM	0.02+00						X.				
HUIDANAVA EI	0.02+00	5.4°					N.	•		٠,	
14 ACETONS	0.0E+00						K.				
15 BENZENS	0.02+00						0E+00				
16 CARBON DISULFI	0.02+00						AN				
17 BTHYLBENZENE	0.02+00		•				A.				
TAINGOSITABLEM 81	0.02+00						KN.				
19 TOLUENS	0.08+00						X .				

CHILD (CL-B)

LIFETIME RISK SUMMARY

SITE NAME: CAMERON STATION
OPERABLE UNIT: DISK 3
FILE NAME: POP2
LAST UPDATED: 06/09/92

34 CHRYSENE
35 DIBENS [a,h] A
36 FLUORANTHENE
37 FLUORENE
38 INDENO [1,2,339 NAPHTHALENE
40 PHENANTHRENE

0.02+00

0.08+00 0.08+00 0.08+00 0.08+00 0.08+00

PHENOL

* BENZO [a] ANTH

9 BENZO [a] PYRE
0 BENZO [b] FLUO
1 BENZO [q,h,1]
2 BENZO [k] FLUO
3 BIS (2-ETHYLHE

0 XYIENES, TOTAL
1 1,2-DIMETHYLDE
2 1,3-DIMETHYLDE
1 2,4-DIMETHYLDH
4 2-METHYLDHEND
5 2-METHYLDHEND
6 ACENAPHTHENE
6 ACENAPHTHENE
7 ANTHRACENS

0.02+00
0.02+00
0.02+00
0.02+00
0.02+00
0.02+00
0.02+00
0.02+00
0.02+00
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0.02+00
0.02+00
0.02+00
0.02+00

61 TRICHLOROFLUOR	60 2-(2,4,5-TRICH	59 2,4-DICHLOROPH	58 2,4,5-TRICHLOR	57 PCB 1260	56 HETHOXYCHLOR	55 LINDANE / GAMA	54 HEPTACHLOR EPO	53 HEPTACHLOR	52 GAMMA-CHLORDAN	51 DIELDRIN	50 BETA-ENDOSULFA	49 BENZOIC ACID	48 BENZALDEHYDE	47 ALPHA CHLORDAN	46 ALDRIN	45 2,2-BIS (PARA-	44 2,2-BIS (PARA-	43 2,2-BIS (PARA-
0.02+00	0.02+00	0.02+00	0.02+00	4.48-06	0.02+00	0.02+00	0.02+00	0.CE+00	7.58-07	0.02+00	0.02+00	0.02+00	0.02+00	7.18-07	0.02+00	3.32-06	2.7E-06	0.02+00

POPULATION TO	TOTAL PATH
OPILATION TOTAL EXCESS DISK	PATHWAY CANCER RISK
30-05	SK 3E-05

RISK	
3E-05	X :
0E+00	
02+00	

0E+00 9E-07 8E-07 9E-07 9E-08 9E-08

SUBCHRONIC EXPOSURE SUHHARY

CHILD (PG)

NAME: INHALATION (FROM WS1) 0.02+00 5.02-09 5.22-11 AIR-PART SCENARIO 1 SCENARIO 2 SCENARIO 3 (FROM WS2) (FROM WS3) (FROM WS4) 0.0E+00 0.0E+00 0.0E+00 SUBCHRONIC DAILY INTAKE (mg/kg/day)
SCENARIO 2 SCENARIO 3 SCENARIO 4 (FROM WS5) SCENARIO 5 0.0E+00 (FROM WS6) SCENARIO 6 0.0E+00 SCENARIO PIC. GND AIR-PART (FROM WS1) INHALATION SCENARIO 2 (FROM WS2) SUBCHRONIC HAZARD QUOTIENT CHARIO 2 SCENARIO 3 SCENA 0E+00 (PROM WS3) 02+00 (FROM WS4) SCENARIO 02+00 (FROM WS5) SCENARIO 5 02+00 (FRON WS6) SCENARIO 6 02+00

CHILD (PG)

SUBCERONIC RISK SUMMARY

LAST UPDATED: 06/05/92

SITE NAME: CAMERON STATION OPERABLE UNIT: DISK 3 FILE NAME: POP3

24 2 3

2E-04 0E+00

5E-06

02+00 5E-10 0E+00 8E-11 0E+00 2E-10 2E-10

0.08+00 4.08-11 5.98-11 1.38-10 1.18-10 9.8E-11

ACENAPHTHENE
ANTHRACENE

2-METHYLMAPHTH 2-METHYLPHENOL

2,4-DIMBTHYLPH

1,3-DIMETHYLBE

28 BENEO (a) ANTH 29 BENEO (a) PYRE

30 BENZO [b] FLUO

BENSO [4, h, 1]
BENSO [k] FLUO

BIS (2-ETHYLHE

DIBENS [a,h] A CERYSENS

FLUORANTHENS

FLUORENE

ENETALEMENT

TONERA

PHENANTHRENE

INDENO (1,2,3-

5.0E-11

PYRENE

0.05+00

1.5E-10 1.28-11 3.45-11 1.95-10

0.02+00

1.35-10

8.28-11 4.28-11 1.28-11

1,2-DIMETHYLBE

0.02+00 0.02+00 1.28-11 0.02+00

XYLENES, TOTAL Toluene

TALIBOSITABLEM 4.5E-11 4.5E-11 4.58-11 4.5E-11

ETHYLBENZENE

CARBON DISULFI ACETONE Benzenb

HOIGYNYA

0.02+00

0.05+00

1.1E-09

0.02+00 0.05+00

2.8E-10 1.28-09

NITRATE
D NITRATE
D NITRITE
D SILVER
THALLIUM

ARSENIC BARIUM

BERYLLIUM

CADMIUM (WATER CADMIUM (FOOD)

0.02+00

0.02+00

MERCURY

4.5E-11

0.02+00 4.5E-11

£ 6	59	58	57	56	55	5	53	52	51	50	\$	ŝ	5	6	5	=	43
TRICHLOROFLUOR	2,4-DICHLOROPH	2,4,5-TRICHLOR	PCB 1260	METHOXYCHLOR	LINDANE / GAMA	HEPTACHLOR EPO	HEPTACHLOR	GAMMA-CHLORDAN	DIELDRIN	Beta-endosulfa	BENZOIC ACID	Benealldehyde	ALPHA CHLORDAN	ALDRIN	2,2-BIS (PARA-	2,2-BIS (PARA-	2,2-BIS (PARA-
0.08+00	0.02+00	0.02+00	6.4E-11	0.02+00	0.02+00	6.4E-11	6.4E-11	0.02+00	6.4E-11	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	6.4E-11	6.4E-11	6.4E-11

POPULATION TOTAL	PATHWAY SUM (HI)																			
2E-04	* * * * * * * * * * * * * * * * * * *	00+30	KN.	X.	X.	N.	XX.	XX.	XX	XX	KN.	X.	N.	XX	KN.	AN	NA.	K.	N.	AN
	0E+00				•							•								
	0E+00																			
	02+00							٠												

0E+00

02+00

1 i

CHRONIC EXPOSURE SUMMARY

CURRENT (PG)

42 PYRENE			39 MAPHTHALENB	38 INDENO [1,2,3-	37 FLUORENE	36 FLUORANTHENS			_		BENZO	31 BENZO [g,h,i]	30 BENZO [b] FLUO	29 BENZO (a) P	28 BENZO [a] ANTE	27 ANTHRACENE	26 ACENAPHTHENE	25 2-METHYLPHENOL	24 2-METHYLNAPHTH	23 2,4-DIMBTHYLPH	22 1,3-DIMETHYLBE	21 1,2-DIHETHYLBE	20 XYLENES, TOTAL	19 TOLUENE	18 METRYLISOBUTYL	17 ETHYLBENIENE	16 CARBON DISULFI	15 BENZENS	14 ACETONE	HUIDANAVA EI			10 NITRITE	9 NITRATE	8 NICKEL	7 MERCURY	6 CHROMIUM	5 CADMIUM (WATER	4 CADMIUM (FOOD)	3 BERYLLIUM	2 BARIUM	1 ARSENIC	CHEMICAL NAME					
1.75-10				u	3.48-11	B 1.9E-10	>			٠,	_	i) 4.2E-11	LUO 1.1E-10	PYRE 9.8E-11	NTH 1.3E-10	5.92-11	B 4.0E-11	NOT 0.02+00	HTH 1.28-11	LPH 0.0E+00	LBE 0.0E+00	LBE 0.0E+00	•	4.58-11		E 4.5E-11		4.58-11	4.58-11	1.12-09	0.02+00	0.02+00	0.05+00	0.08+00	2.88-10	0.0E+00		•-		5.2E-11	5.02-09		ME (FROM WS1)	INHALATION	AIR-PART	PIC. GND	SCENARIO I	
																																										0.02+00	(FROM WS2)	0	0		SCENARIO 2	
																						•					٠	74.5	. # ÷	ŗ.	<i>े</i>											0.02+00	(FROM WS3)	0	•	•	SCENARIO 3	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
																																										0.02+00	(FROM WS4)	0	0	0	SCENARIO 4	1 7 am 1 Kw 1 Kw
															•																						•					0.02+00	(FROM WS5)	0	0	0	SCENARIO 5	
)																																										0.0E+00	(FROM WS6)	0	0	0	SCENARIO 6	
AN.	AN.	KA .	AN.	XX.	XX.	AN	A.A.	NA.	. AN		× ;	A.	AN	V.N.	YN	Y.	XN.	XX.	YN.	YN.	0E+00	0E+00	5E-10	8E-11	22-09	22-10	00+00	XX.	AN.	KN.	X.	×	N	× .		0E+00	2F_03	× .	*	AN.	5E-05	. .	(FROM WS1)	INHALATION	AIR-PART	PIC. GND	SCENARIO 1	
																								•																		02+00	(FROM WS2)	0	0		SCENARIO 2	CHKONTC
																																										02+00	(FROM WS3)	0	•	0	SCENARIO 3	CHKONIC WASAKO COCIENT
																																•										05+00	FROM WS41	0	•	0	SCENARIO 4	TENT
																																											(FROM WS5)	0	0	•	SCENARIO 5	
																																											FROM WS61	•	0		SCENARIO 6	

CHRONIC RISK SUMMARY

CURRENT CHILD (PG)

3.**4**

SITE NAME: CAMERON STATION OPERABLE UNIT: DISK 3 FILE NAME: POP3
LAST UPDATED: 06/05/92

43 2,2-BIS (PARA44 2,2-BIS (PARA45 2,2-BIS (PARA45 2,2-BIS (PARA46 ALDRIN
47 ALPAA CHLORDAN
48 BENZALDEHYDE
49 BENZOIC ACID
50 BETA-ENDOSULFA
51 DIELDRIN
52 GAMMA-CHLORDAN
53 HEPTACHLOR
54 HEPTACHOR
55 LINDAME / GAMA
56 METHOXYCHLOR
57 PCB 1260

6.4E-11 6.4E-11 0.0E+00 0.0

50 2,4,5-TRICHLOR
59 2,4-DICHLOROPH
60 2-(2,4,5-TRICH
61 TRICHLOROFLUOR

POPULATION TOTAL PATHWAY SUM (HI) 2E-03

2E-03

0E+00

0E+00

02+00

02+00

02+00

	12 DYRENE		SAZARIMANNA 07	19 WATHTHALKIR	30 INDENO	37 FLUORENE	30 ETOCKWITENE	1	35 DIBERS	. 34 CHRISENS	33 BIS 12-	: 32 BENZO [L CANAG Te	30 BENZO I	29 BENZO (78 BENZO [an anamacuna	. 97 ANTHRAC	26 ACENAPHTHENS	25 2-METHY	A A-MBANA	J. J. Wante	23 2.4-DIY	22 1,3-DIP	110-21	31 3 3 7 7	20 XYLENES	19 TOLUENS	TABLEM 81	T. PIUINDENBENB	17 94441 51	16 CARBON	15 BENZENS	14 ACETONE		HITTOMAN E	12 THALLIUM	11 SILVER	10 NITRITE	A MITANIE	0 1110701	- urana	7 MERCURY	6 CHRONIUM	5 CADHIUM	CADKIUN	3 BERYLLIUM	2 BARIUM	1 ARSENIC	CHEMICA						
		i	HRENE	LENE	INDENO [1.2.3-	6 	TOBNE		DIBERT (a,b) A	â	BIS (2-ETHYLHE	BENZO [x] PLUO	[1,0,2]	Ib! FLUO	BENZO (a) PYRE	BENZO (#) WATE		4	SNZHT	2-METHYLPHENOL	S-RETURNATIO	מישמות שו	1.4-DIMETHYLPH	, 3-DIMETRYLBE	TOT LET BY ALL	THE TOTAL	XYLENES, TOTAL		TAINEOSITABLEH	20000	- ENGERN	CARBON DISULFI				ž	Ħ		••		•			Z ,	4 (WATER	CADMIUM (FOOD)	T S			ZWYN J			.	<u> </u>	နှင့်	ļ
	1.58-11	0.08+00	1.38-11	1.18-12	4.3E-12	3.0E-12	11-20.1		0.02+00	1.12-11	1.1E-12	7.1E-12	7.05-14	9.2E-12	8.5E-12	7.12-11		A . OR. 13	3.4E-12	0.02+00	1.15-14		0.02+00	0.02+00	0.05100	0 0 0 0 0 0	3.92-12	3.92-12	3.9E-12	3.35-14	3 04-13	0.02+00	3.9E-12	3.95-12		0.18-11	0.02+00	0.02+00	0.02+00	0.02100		3	0.08400	1.02-10	0.02+00	0.02+00	4.5E-12	4.3E-10	0.0E+00	(FROM WS1)	MOLTALIANI	7-8-22-4	מפנם מדג		SCENARIO 1	
									-														٠																									:	0.0E+00	(FROM WS2)			.	0	SCENARIO 2	LIFETIME A
																														`	٠.		r.	f. i		-:	N.	€.											0.02+00	(7R		_	_	0	SCENARIO 3	VERAGE DAIL
															_									•																									0.0E+00	(FROM WS4)	_			_	SCENARIO 4	LIFETIME AVERAGE DAILY INTAKE (mg/kg/day)
																																																	0.05+00	(FROM WS5)	0		> <		SCENARIO 5	kq/day)
)																																								÷									0.0E+00	(FROM WS6)	0	_			SCENARIO 6	
š	2 2	¥ \$		£ ;	X X	XN.	. NA		*	XX.	 2	4 8	XX	z	XX.	NA.	2		4 8	X	NA		2	KN	× ×		2	×	KN	NA		2	0E+00	X.	2		Z.	×	×.	**	3			15.00	0E+00	0E+00	(E-1)	2	0E+00	(FROM WS1)	INHALATION	TXY4-NIV		מעם סדם	SCENARIO 1	
,																											٠	•										•			•	-							0E+00	(FROM WS2)		0			SCENARIO 2	LIFET
																																																	00+30	(FROM WS3)	0	•		,	SCENARIO 3	LIFETIME EXCESS CANCER RISK
																																																	02+00	(FROM WS4)	0	0			SCENARIO A	NCER RISK
٠													•																																					(PROH WS5)		•		011111111111111111111111111111111111111	SCENARIO 5	•
)																																																	02+00	(FROM WS6)	0	0		00000000	SCENADIO 6	

LIFETIME RISK SUMMARY

CURRENT CHILD (PG)

CURRENT (PG)

LIFETINE EXPOSURE SUMMARY

SITE NAME: CAMERON STATION OPERABLE UNIT: DISK 3
FILE NAME: POP3
LAST UPDATED: 06/05/92

9 1 2 1	61 TRICHLOROFLUOR	60 2-(2,4,5-TRICH	59 2,4-DICHLOROPH	58 2,4,5-TRICHLOR	57 PCB 1260	56 HETHOXYCHLOR	55 LINDANE / GAMA	54 HEPTACHLOR EPO	53 HEPTACHLOR	52 GAMMA-CHLORDAN	51 DIBLORIN	50 BETA-ENDOSULFA	49 BENZOIC ACID	48 BENZALDENYDE	47 ALPHA CHLORDAN	46 ALDRIN	45 2,2-BIS (PARA-	44 2,2-BIS (PARA-	43 2,2-BIS (PARA-	
	0.02+00	0.02+00	0.02+00	0.02+00	5.52-12	0.02+00	0.02+00	5.5E-12	5.5E-12	0.02+00	5.5E-12	0.02+00	0.02+00	0.05+00	0.02+00	0.02+00	5.5E-12	5.5E-12	5.5E-12	

TOTAL PATHWAY CANCER RISK 4E-0

POPULATION TOTAL EXCESS RISK

2E-12

NA

NA

0E+00

0E+00

0E+00

1E-00

0E+00

0E+00

0E+00

0E+00

0E+00

0E+00

0E+00

0E+00

0E+00

02+00

02+00

02+00

AN .

					_								•			•								•																								
AT ELINGHIA		40 PHEKANTHRENE	39 MAPETHALENS	38 INDENO [1,2,3-	37 FLUORENE	36 FLUORANTHENE	35 DIBENT [a,h] A	34 CHRYSENE	33 BIS (2-BTHYLHE	32 BENSO [k] FLUO	31 BENIO (g,h,1)	30 BENSO (b) FLUO	29 BENZO (a) PYRE	, 28 BENSO (a) ANTE	27 ANTERACENE	26 ACENAPHTHENE	25 2-METHYLPHENOL	24 2-METHYLNAPHTH	23 2,4-DIMETHYLPH	22 1,3-DIMETHYLBE	21 1,2-DIMETHYLBE	20 XYLENES, TOTAL	19 TOLUENE	18 METHYLISOBUTYL	17 ETHYLBENZENS	16 CARBON DISULFI	15 BENZENE	14 ACETONE	HUIDANAY EI	12 TEALLIUM	11 SILVER	10 MITRITE	9 NITENTE	/ HERCORI	6 CERONIUN	S CADMIUM (WATER	. 4 CADMIUM (FOOD)	3 BERYLLIUM	2 BARIUM		CHEMICAL NAME	•						
	0.0H+00	5.6E-10	4.5B-11	1.82-10	1.25-10	6.82-10	0.08+00	4.58-10	4.5E-11	3.08-10	1.58-10	3.82-10	3.5E-10	4.58-10	2.15-10	1.4E-10	0.08+00	4.58-11	0.02+00	0.02+00	0.05+00	1.6E-10	1.62-10	1.68-10	1.68-10	0.05+00	1.6E-10	1.6E-10	3.85-09	0.02+00	0.02+00	0.08+00	0.08+00	0.00+00	4.35-09	0.02+00	0.02+00	1.92-10	1.82-08	0.02+00	FROM WS1)	INHALATION	ATR-PART	SCENARIO 1				
				,	•																		•				: 14	pë			4									0.0E+00	(FROM WS2)	о (.	SCENARIO 2	SUBCHRONIC 1			
																								٠			• •													0.02+00	FROM WS3)	-	.	SCENARIO 3	SUBCHRONIC DAILY INTAKE (mg/kg/day)		CHILD (BF)	Cipagua
													•																											0.02+00	(FROM WS4)	5 (SCENARIO 4	(mg/kg/day)			
																																	٠							0.05+00	CEBOM ROSE)			SCENARIO 5				
)	•																																							0.05+00	FROM Mekt	> c	, 0	SCENARIO 6				
NA.	, a	NA.	KH	KX.	XX.	X.N	KN	VN	KN.	KN.	. VN	KN	KN	KN	KN.	. NA	A.N.	KX.	KN	0E+00	02+00	22-09	3E-10	8E-10	6E-10	0E+00	N i	× ;		× ×	2 2	22		02+00	7E-04	A.	XX.		25-05	(Tem HONE)	MOTTATIVENT	ALK-PART	BALL FIELD	SCENARIO 1				
						i																٠										•								(FRUM MSZ)		· c	. 0	SCENARIO 2	SUBCHRON			
																																								(FKUM MOJ)			. 0	SCENARIO 3	SUBCHRONIC HAZARD QUOTIENT	(se)	CURRENT	
													•																-										02700	(PROM WS4)			. 0	SCENARIO 4	OTIENT			
																																							02100	(FROH WS5)	0			SCENARIO 5				
)										•																				٠									05400	(FROM WS6)	0	. 0	0	SCENARIO 6				

SUBCHRONIC RISK SUMMARY

SUBCHRONIC EXPOSURE SUHMARY

SITE NAME: CAMERON STATION
OPERABLE UNIT: DISK 3
FILE NAME: POP4
LAST UPDATED: 06/05/92

1 TRICHLOROFLUOR	0 2-(2,4,5-TRICE	9 2,4-DICHLOROPH	58 2,4,5-TRICHLOR	57 PCB 1260 .	56 METHOXYCHLOR	55 LINDANE / GAMA	54 HEPTACHLOR EPO	3 HEPTACHLOR	52 GAMMA-CHLORDAN	51 DIELDRIN	50 BETA-ENDOSULFA	49 BENZOIC ACID	48 BENZALDEHYDE	47 ALPHA CHLORDAN	16 ALDRIN	15 2,2-BIS (PARA-	14 2,2-BIS (PARA-	13 4,4-DIS (FARA-
0.02+00	0.0E+00	0.02+00	0.02+00	2.3E-10	0.02+00	0.02+00	2.3E-10	2.35-10	0.02+00	2.3E-10	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	2.3E-10	2.38-10	4.55-10

POPULATION TOTAL PATHWAY SUM (HI)

7E-04

7E-04

02+00

0E+00

02+00

00+00

0E+00

CHRONIC EXPOSURE SUMMARY

CHRONIC DAILY INTAKE (mg/kg/day) CURRENT CHILD (BF)

4																														٠.	• • •					2																	
42 PYRENE	40 FREMENTANDAS	10 paratamenters	TO WYDERT THE	18 THORMO (1-2-3-	37 FLUORENE	30 FLUCKANTHERS		. 35 DIBENT (a,h) A	of Chinastin	14 CHRYSRUE	33 BIS (2-ETHYLHE	שני ביין טאמפט זיי	22 PENSO 141 PLIK		OUTE [4] OZNZE OF	29 BENZO (a) PIKS	0524	or street for the	Ξ.	26 ACENAPETHENE	25 2-METHYLPHENOL	24 2-METHYLNAPHTH	40 4,4-04704040404	22 2 L THEFT	22 1.3-DIMETHYLDE	21 1,2-DIMETHYLBE	20 XYLENES, TOTAL	19 TOLUENE	18 HETHYLISOBUTYL	17 ETHYLBENZENS	16 CAMBON DISORE	16 DENEEND STERRET	18 STESTES	14 ACETONE	NUIDANAV EI	12 THALLIUM	11 SILVER	10 MITRITE	9 NITRATE	8 NICKEL	7 MERCURY	6 CHROHIUN	5 CADMIUM (WATER	4 CADMIUM (FOOD)	3 BERYLLIUM	2 BARIUM	1 ARSENIC	CHEMICAL NAME					
6.38-10	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5.6X-10	_		1.25-10	0.00-10		N 0.0E+00		4.5E-10	8 4.55-11			1.58-10	3.85-10	-			2.1E-10	1.48-10	0.02+00					0.08+00	1.68-10						1.6%-10	1.68-10	3.82-09	0.02+00	0.02+00	0.08+00	0.02+00	1.08-09	0.02+00	4.38-09	0.02+00	0.08+00	1.98-10	1.82-08	0.08+00	(FROM WS1)	NOITAIAHNI	AIR-PART	GTZIA TIVE	SCENARIO 1	
				_																													-,-	.5.4	;*			•									0.02+00	(FROM WS2)				SCENARIO 4	CHRONIC DAI
																										٠				.*			•	•		•	•••										0.02+00	(FROM WS3)				PURINATO 3	
															•																								•								0.08+00	(FROM WS4)				OF DEVIAND	- 1
																	•																														0.08+00	(FROM WSD)				טרמאאים ה	S OTBINESS
D					•																																										0.00+00	(FRUM WSG)		•	> <	ocenana o	A OTHERDS
H.	X.	XX.	XX.	74	: 3	z	X	: 1	**	2>		4	*			*	*	X.	X			*	¥	A.N.	00+30	00.00		20.00	3E-10	82-09	6E-10	0E+00	AN AN	XX	**	3		X.			00+10	200	ירר-פר אמ	5 3		40 - 37	35 - D.	(Tem movi)	THE MOST	THE TARTON	ATR-PART	BALL FIELD	SCENARIO 1
					•										•					•																												(254 EOX3)	FBOM MC31	5	0 (0	SCENARIO 2
																																										•						02+00	LESS MODE	0	o	0	NARIO 2 SCENARIO 3 SCI
																																																02+00	ABOM MS41	0	0	0	SCENARIO 4
						•																																										08+00	FROM WS51	0	0	•	SCENARIO 5
																																																02+00	(FROM WS6)	0	0	0	SCENARIO 6

CHRONIC RISK SUMMARY

CURRENT (BF)

SITE NAME: CAMERON STATION OPERABLE UNIT: DISK 3 FILE NAME: POP4 LAST UPDATED: 06/05/92

•	-VAVA CTG-7'7	4.3E-10
_	2,2-BIS (PARA-	2.3E-10
·	2,2-BIS (PARA-	2.3E-10
9	ALDRIN	0.0E+00
~	ALPEA CHLORDAN	0.02+00
•	Benealdehyde	0.0E+00
•	BENZOIC ACID	0.02+00
0	Beta-endosulfa	0.02+00
_	DIELDRIN	2.3E-10
~	GAMMA-CHLORDAN	0.0E+00
•	HEPTACHLOR	2.3E-10
-	HEPTACHLOR EPO	2.3E-10
·	LINDANE / GAMA	0.0E+00
9	METHOXYCHLOR	0.02+00
~	PCB 1260	2.3E-10
•	2,4,5-TRICHLOR	0.08+00
•	2,4-DICHLOROPH	0.02+00
0	2-(2,4,5-TRICH	0.02+00
-	TRICHLOROFLUOR	

POPULATION TOTAL PATHWAY SUM (HI) 7E-03 7E-03

02+00

02+00

0E+00

0E+00

2.3E-10

43 2,2-BIS (PARA-

LIFETIME EXPOSURE SUMMARY

CHILD (BF) CURRENT

					1							
0	02+00	00+30	02+00	0E+00	0E+00	0.02+00		0.0E+00	0.05+00	0.0E+00	0.02+00	1 ARSENIC
(FROM WS	(FROM WS5)	(FROM WS4)	(FROM WS3) (FROM WS4) (FROM WS5)		(FROM WS1)	(FROM WS6)	(FROM WS5)	(FROM WS4)	(FROM WS3)	(FROM WS2)		CHEMICAL NAME
		0	0	0	NOITALANI	0	0	0	0	0	INHALATION	
	0	0	•	0	AIR-PART	0	0	0	0	0	AIR-PART	
	0	0	0	0	BALL FIELD	0	0	•		0	BALL FIELD	
SCENARI	SCENARIO 5	SCENARIO 4	SCENARIO 2 SCENARIO 3 SCENARIO 4 SCENARIO 5 SCENAR	SCENARIO 2	SCENARIO 1	SCENARIO 6	SCENARIO 5	SCENARIO 1 SCENARIO 2 SCENARIO 3 SCENARIO 4 SCENARIO 5 SCENARIO	SCENARIO 3	SCENARIO 2	SCENARIO 1	
		CANCER RISK	LIFETIME EXCESS CA	LIFETI			(g/day)	LIFETIME AVERAGE DAILY INTAKE (mg/kg/day	ERAGE DAILY	LIFETIME AV		
				•								

NOITALION	AIR-PART	BALL FIELD	SCENARIO 1		
•	•		SCENARIO 2	LIFETIME A	
_			SCENARIO :	VERAGE DAILS	CURRENT CHILD (BF)
0	•		SCENARIO	LIFETIME AVERAGE DAILY INTARE (mg/kg/da)	_
0	0	0	SCENARIO 2 SCENARIO 3 SCENARIO 4 SCENARIO 5 SCENARIO 6	/kg/day)	
0	0	•	5 SCENARIO		
0	0	0	•		
INHALATION	AIR-PART	BALL FIELD	SCENARIO 1 SCENARIO		
0	0	•	SCENARIO 2	LIFETIM	•
0	•	0	SCENARIO 3	IME EXCESS CANCER RISK	CURRENT CHILD (BF)
•		0	SCENARIO 4	ANCER RISK	
		0	SCENARIO 3 SCENARIO 4 SCENARIO 5 SCENARIO 6		
_	c	_	SCENARIO 6		
_	_	_		l	

42 PYRENE			39 NAPHTHALBNE	38 INDENO [1,2,3-	37 FLUORENE					33 BIS (2-ETHYLHE	32 BENZO [k] FLUO	31 BENZO {g,h,1}	30 BENZO [6] PLUO	BENZO	DENZO		-				_			20 XYLENES, TOTAL	19 TOLUENE	18 METHYLISOBUTYL	17 ETHYLBENZENE	16 CARBON DISULFI	15 BENZENS	14 ACETONE	HUIDANAVA ET	12 TEALLIUM	11 SILVER	10 NITRITE	9 NITPATE	8 NICKEL	7 MERCURY	6 CHRONIUM	S CADMIUM (WATER	4 CADMIUM (FOOD)	3 BERYLLIUM	2 BARIUM	1 ARSENIC	CHEMICAL NAME					
5.45-11	0.01+00	4.88-11		- 1.6B-11		7.1-2B.C				3.82-12		1.32-11													1.42-11	1.48-11	1.48-11	. 0.02+00	1.45-11	1.48-11	3.2E-10	0.02+00	0.02+00	0.05+00	0.02+00	8.7E-11	0.02+00		•	0.02+00	1.62-11	1.52-09	0.02+00	(FROM WS1)	INHALATION	AIR-PART	BALL FIELD	SCENARIO 1	
																													.17,				¥										0.02+00	(FROM WS2)	0	0	0	SCENARIO 2	LIFETIME AVI
																										٠																	0.02+00	(FROM WS3)	0	0		SCENARIO 3	ERAGE DAILY
																																											0.02+00	(FROM WS4)	0	•	0	SCENARIO 4	LIFETIME AVERAGE DAILY INTAKE (mg/kg/day)
																																											0.02+00	(FROM WS5)	0	0	•	SCENARIO 5	(g/day)
																																											0.02+00	(FROM WS6)	0	0	0	SCENARIO 6	
3	5 2	: 2	: 2			5 1	2	2	2	2				2 3	E :	£ ;	E	£ :	¥ :	× .		K.	K.	X.	×		× ×		00+30	N.A.		×	X.	N.	K K	KN.	KN	2E-08	0E+00	0E+00	1E-10	X.X.	00+00	(FROM WS1)	HOLLYTVHII	AIR-PART	BALL FIELD	SCENARIO 1	
·						•							•	•	- •	•		•		•	•			•																			0E+00	(FROM WS2)	0	0	0	SCENARIO 2	LIFET
																																											02+00	(FROM WS3)		0		SCENARIO 3	LIFETIME EXCESS CANCER RISK
																																											02+00	(FROM WS4)	0			SCENARIO 4	NCER RISK
		•	•																																								02+00	(FROM WS5)		0	•	SCENARIO 5	
																																											02+00	(FROM WS6)	_	0	0	SCENARIO 6	

SITE NAME: CAMERON STATION
OPERABLE UNIT: DISK 3
FILE NAME: POP4
LAST UPDATED: 06/05/92

LIFETIME RISK SUMMARY

60 2-(2,4,5-TRICH 61 TRICHLOROFLUOR	57 PCB 1260 58 2,4,5-TRICHLOR, 59 2,4-DICHLOROPH	53 HEPTACHLOR 54 HEPTACHLOR EPO 55 LINDANE / GAMA 56 METHOXYCHLOR	49 BENZOIC ACID 50 BETA-ENDOSULFA 51 DIELDRIN 52 GAMMA-CHLORDAN	43 2,2-BIS (PARA- 44 2,2-BIS (PARA- 45 2,2-BIS (PARA- 46 ALDRIN 47 ALPHA CHLORDAN 48 BENZALDEHYDE
0.08+00	2.0E-11 0.0E+00 ·	2.0M-11 2.0M-11 0.0M+00 0.0M+00	0.08+00 0.08+00 2.08-11 0.08+00	2.02-11 2.08-11 2.08-11 2.08-11 0.02+00 0.02+00 0.02+00

POPULATION TOTAL EXCESS RISK	TOTAL PATHWAY CANCER RISK
RISK 2E-08	RISK 2E-08
80	8

7E-12

NA
0E+00
0E+00
NA
NA
NA
1B-10
0E+00
0E+00
0E+00
NA
NA
NA
NA
NA
NA
NA 0E+00 02+00

0E+00

0E+00

0E+00

SUBCHRONIC EXPOSURE SUMMARY

42 PYRENE			39 NAPHTHALENE	38 INDENO [1,2,3-	37 FLUORENE		35 DIBENE (a,h) A	34 CERYSENE	33 BIS (2-ETHYLHE	32 BENEO (k) FLUO		30 BENZO [b] FLUO	29 BENZO (a) PYRE	20 BENZO [a] ANTH	27 ANTERACENE	26 ACENAPHTHENE	25 2-METHYLPHENOL	24 2-METHYLMAPHTH	23 2,4-DIMETHYLPE	22 1,3-DIMETHYLBE	21 1.2-DIMETRYLBE	20 YYLENES, TOTAL	19 POTTENE	10 WETHINGTONING	16 CARBON DISULFI	15 BENZENE	14 ACETONE	HOLDVNVA ET	12 TEALLIUM	11 SILVER	10 NITRITE	9 NITRATE	NTCXNT.	7 MERCURY	CADREON (NAMES	(CADMIUM (FOOD)	3 BERYLLIUM	2 BARIUM	1 ARSENIC	CHEMICAL NAME							
0.02+00	0.02+00	0.05+00	0.05+00	0.02+00	0.02+00	0.05+00	0.02+00	0.02+00	0.02+00	0.02+00	0.05+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.05+00	0.02+00	0.03+00	0.08+00	0.00	0.08+00	0.02+00	0.011+00	9.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.08+00	0.08+00	0.00	0.02+00	0.02+00	0.02+00	0.02+00	(FROM WS1)	ORAL	TIOS	PCB POLES	SCENARIO 1			
XX.	XX	KK	KK	XX.	A.K	X	KK.	KK K	A.		X.	KK	YN	KK	VK	AN.	NA	XX.	KN.	KK .	× ;			E 7	X.		N.	X.	X.	KN	K.	¥ .	¥ ;	2 3	0.05400	0.02+00	K.	XN.	X.	(FROM WS2)	DERMAL	1109	PCB POLES	SCENARIO 2	SUBCHRONIC		
	•																							•		•													0.02+00	(FROM WS3)		0	0	SCENARIO 3	DAILY INTAK	RES-CHILD	FUTURE
																																							0.02+00	(FROM WS4)	•		0	SCENARIO 4	SUBCERONIC DAILY INTAKE (mg/kg/day)		
																																							0.02+00	(FROM WS5)	0	0	0	SCENARIO 5	-		
																																							0.02+00	(FRON WS6)	0	0 (0	SCENARIO 6			
00+30	00+20	02+00	02+00	02+00	02+00	00+20	02+00	00+00	00+30	02+00	02+00	02+00	02+00	02+00	0E+00	0E+00	KN	00+30	00+30	0E+00	05+00	05+00	00+00	05+00	00+00	AN	0E+00	02+00	02+00	0E+00	A.	YK	09 60	00+30	NA.	YN	02+00	02+00	02+00	(FROM WS1)	ORAL	SOIL	pca poles	SCENARIO 1			
KK	*	*	*	XX.	¥ .	*	K.	×	XX :	-KK	X.	XX.	A.	XX.	KN.	X.	KN.	N :	× ×	¥ :	N AN		XX	X.	XN.	VN	A.N.	Z.	Z.	¥ 1	Z	¥ 3	E 3	, N	X.	¥.	KN.			(FROM WS2)	DERHAL	SOIL	PCB POLES	SCENARIO 2	SUBCHRON		
																																							02+00	(FROM WS3)	0		0.0000000000000000000000000000000000000	NARIO 2 SCRNARIO 3 SCRNA	TC HAZARD OF	RES-CHILD	FUTURE
		•																																				;	0E+00	(FROM WS4)	5 (.	0.0000000	3	OTTENT		
																								٠							-								02+00	FROM WS51	> 0	> 0	o otherson	201010 5			
)																																							02+00	(FROM WS6)	> 0	> 0	O OTWANTO				

 $\epsilon_{\frac{1}{2}}^{-1}$

SUBCERONIC RISK SUMMARY

LAST UPDATED: 06/05/92

SITE NAME: CAMERON STATION OPERABLE UNIT: DISK 3 FILE NAME: POP5

	X	X.	N.	AA	5.2E-08	AA	AN	WN	ΛN	AN	NA.	NA.	NA.	¥	AX	ĸ	XX.	XX.	AN
PATHWAY SUH (HI)																			
* 3E-04	00+30	0E+00	0E+00	0E+00	AN	7E-06	0E+00	AN	3E-07	4E-05	2E-06	3E-06	0E+00	0E+00	5E-05	0E+00	A.	A.	2E-04
0E+00	X.	N.	K N	. NA	K N	NA.	KN	X.	N.	KN.	AN	NA	X.	KN.	A.N				
00+30																			
02+0																			

43 2,2-BIS (PANA44 2,2-BIS (PARA45 2,2-BIS (PARA46 ALDRIH
47 ALPHA CHLORDAN
48 BENEALDEHYDE
49 BENEOIC ACID
50 BETA-ENDOSULFA
51 DIELDRIN
52 GAMMA-CHLORDAN
53 HEPTACHLOR
54 HEPTACHLOR EPO
55 LINDANE / GAMA
56 METHOXYCHLOR
57 PCB 1260
58 2,4,5-TRICHLOROPH
60 2-(2,4,5-TRICH
61 TRICHLOROFLUOR

9.7E-08
3.07E-09
3.0E-09
0.0E+00

POPULATION TOTAL 3E-04

è

02+00

0E+00

11.

l i

CHRONIC EXPOSURE SUMMARY

Future Res-Child

CHRIST NICE (SOCIETY SOCIETY SOCIETY SOCIETY SOCIETY SOCIETY						
Apple Hear	ORAL	TIOS	PCB POLES	SCENARIO 1		
1900 5031	DERWAL	TIOS	PCB POLES	SCENARIO 2	CHRONIC DAI	
TOTAL LICES	0	0	0	SCENARIO 3	CHRONIC DAILY INTAKE (mg/kg/day	Futurb Res-Child
	0	0	0	SCENARIO 4	ng/kg/day)	
	•	0	0	SCENARIO 1 SCENARIO 2 SCENARIO 3 SCENARIO 4 SCENARIO 5 SCENARIO 6		
1000 5000	0	0	0	SCENARIO 6		
1000	ORAL	TIOS	PCB POLES	SCENARIO 1		
recorded to the control of the contr	DERMAL	TIOS	PCB POLES	SCENARIO 1 SCENARIO 2 SCENARIO 3 SCENARIO 4 SCENARIO 5 SCENARIO	CHRONIC	
	0	0	0	SCENARIO 3	CHRONIC HAZARD QUOTIENT	FUTURE RES-CHILD
200		0	0	SCENARIO 4	ent	
	0	0	•	SCENARIO 5		
			•	SCENARIO 6		

	02+00					ני בי			
X X	00+30					* *	0.03+00	39 NAPETHALENE 40 PHENANTHRENE	.
NA.	02+00					VN		38 INDENO [1,2,3-	د د د
YN	02+00					KN	0.02+00	7 FLOORENE	 (
A CA	02+20					z 2		o piezna [a,n]	
X.	0E+00					K.		14 CHRYSENE	
XN.	00+30					XX	0.05+00	13 BIS (2-ETHYLHI	·
AN	02+00					VN.	_		
AN	02+00					XN.			•••
KK :	0E+00					AN .		53	ا س
A A	00+00			•		. AX	•		
NA.	06+00					X.	•	7 ANTHRACENE	
KN	00+30					AN		26 ACENAPHTHENE	
XN.	02+00				÷	YN	•	25 2-METHYLPHENOI	
AN.	0E+00					. AN		24 2-MBTHYLNAPHTE	N.
X :	02+00					X .	_ •	23 2,4-DIMSTRYLP	
× ×	08+00					22		01 1,4-01050101101 01 1,4-010501010100	
A A	05+00					Z X	• •	O XILENES, TOTAL	
. NA	00+30	•				X.		19 TOLUENE	
A.	00+30				٠	. AN	_	INTUROSITABLEM 81	_
N.	02+00					X N	0.02+00	17 ETHYLBENIENS	_
V N	00+30				. •	AN.	•	16 CARBON DISULF	_
KN.	KN.					Z.	0.02+00	15 BENZENE	_
XN.	02+00					KN KN	0.02+00	14 ACETONE	_
KN	02+00					Y.	0.02+00	HUIDANAY EI	_
×	0E+00					*	0.05+00	12 THALLIUM	_
N :	OE+00					¥ ::	0.02+00	11 SILVER	
¥ 3	05.00					¥ ;	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	O DIMETER	٠.
N.X	08+00					X.	0.08+00	8 NICKEL	
NA.	0E+00					XN.	0.02+00	7 MERCURY	
A.	0E+00					AN	0.02+00	6 CHROHIUM	_
0E+00	02+00					0.0E+00	•	5 CADHIUN (WATER	
02+00	0E+00					0.0E+00		4 CADMIUM (POOD)	_
KN.	00+30					X.	0.02+00	3 BERYLLIUM	
AN	0E+00					Y.N	0.02+00	2 BARIUM	
AN .	00+00	0.02+00	0.0E+00	0.02+00	0.02+00	YN.	0.02+00		
(FROM WS2)	(FROM WS1)	(FROM WS6)	(FROM WS5)	(FROM WS4)	(FROM WS3)	(FROM WS2)	(FROM WS1)		
DERMAL	ORAL	0	•	0	0	DERMAL	ORAL		
TIOS	SOIL	0	0	0	0	TIOS	TIOS		
	PCB POLES	0		0		PCB POLES	PCB POLES		
	SCENARIO 1	SCENARIO 6	- 1	SCENARIO 4	SCENARIO 3	SCENARIO 2	SCENARIO 1		
	SCENARIO 2 PCB POLES SOIL DERHALI (FROH WS2) NA	SCENARIO PCB POLE SOIL DERNAL OFROM MS OE	AXIO 1 SCENARIO POLES PCB POLE SCIL SCIL DERMAL PLAN (FROM HS 0E+00 0E+0	SCENARIO 1 SCENARIO 0 PCB POLES PCB POLE 0 OSIL SOIL 0 ORAL 0 ORAL 0 DEHOU 0 D	SCENARIO 1 SCIL SOIL SOIL OFAL DERMAL DERMAL DERMAL DERMAL OE+00 OE+	SCENARIO 3 SCENARIO 6 SCENARIO 6 SCENARIO 1 SCIL SCIL SCIL SCIL SCIL SCIL SCIL DENAL (FROM MS3) (FROM MS4) (FROM MS5) (FROM MS5) (FROM MS5) (FROM MS5) (FROM MS1) (FR	100 2 SCENARIO 3 SCENARIO 4 SCENARIO 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	SCENARIO 1 SCENARIO 3 SCENARIO 3 SCENARIO 5 SCENARIO 6 CENARIO 6 C	CERNATIO SCENARIO SCENARIO

SITE NAME: CAMERON STATION OPERABLE UNIT: DISK 3 FILE NAME: POP5
LAST UPDATED: 06/05/92

CHRONIC RISK SUMMARY

2,2-BIS (PARA- 3.7E-09 NA 2,2-BIS (PARA- 3.0E-08 NA ALDRIN 0.0E+00 NA ALDRIN 0.0E+00 NA ALDRIN 0.0E+00 NA BENZALDERYDE 0.0E+00 NA BENZALDERYDE 0.0E+00 NA BENZALDERYDE 0.0E+00 NA BENZALDERYDE 0.0E-10 NA BENZALDERYDAN 2.5E-09 NA BENZALDERYN 2.5E-09 NA BENZACHLORDAN 2.5E-09 NA BENZACHLOR EPO 2.0E-10 NA BENZACHLOR EPO 1.3E-10 NA BENZACHLOR EPO 1.0E+00 NA PCB 1260 9.0E-09 5.2E-08 2,4,5-TRICHLOROPH 0.0E+00 NA 2,4-DICHLOROPH 0.0E+00 NA PCICLLOROPH 0.0E+00 NA PCICLLOROPH 0.0E+00 NA PCICLLOROPH 0.0E+00 NA

			3E-04	POPULATION TOTAL
00+00	08+00	02+00	3E-04	PATHWAY SUM (HI)
		X	0E+00	
		X.	0E+00	
		ΑN	05+00	
		ΑN	0E+00	
		, NA	N.	
		٨N	7E-06	
		N.	00+30	
		N.	2E-05	
		XX	3E-07	
		. NA	4E-05	
		AN	2E-06	
		KN	1E-05	
		A.	0E+00	
		X.	0E+00	
		K N	5E-05	
		KN.	0E+00	
		X N	A.N.	

02+00

0E+00

LIFETIME EXPOSURE SUMMARY

RES-CHILD

FUTURE RES-CHILD

			ERAGE DAILY	INTAKE (mg/k	(g/day)			LIFETI	LIFETIME EXCESS CANCER RIS	NCER RISK		
	SCENARIO 1		SCENARIO 2 SCENARIO 3 SCENARIO 4 SCENARIO 5 SCENARIO	SCENARIO 4	SCENARIO 5	SCENARIO 6	SCENARIO 1	SCENARIO 2	SCENARIO 1 SCENARIO 2 SCENARIO 3 SCENARIO 4 SCENARIO 5 SCENARIO 6	SCENARIO 4	SCENARIO 5	SCENARIO 6
	PCB POLES		•	0	•	•	PCB POLES	PCB POLES	0	0	•	0
	TIOS	TIOS	•	0	•	0		TIOS	0	0		0
	ORAL	DERMAL	0	0	<u>}</u>	0	ORAL	DERMAL	0	0	0	0
Ξ	(FROM WS1)	(FRON WS2)	(FROM WS3)	(FROM WS3) (FROM WS4) ((FROM WS5)	(FROM WS6)			(FROM WS3)	(FROM WS4)	(FROM WS5)	(FROM WS6)
	0.02+00	A.N.	0.0E+00	0.0E+00	0.02+00	0.0E+00	0E+00	-KN	NA~ 0E+00 0E+00 0E+00 0E+00	02+00	02+00	0E+00
BARIUM	0.02+00	KN					A.N	AN				
	0.0E+00	XX.					00+00	×				

7 MERCURY
8 NICKEL
9 NITRATE
10 NITRITE
11 SILVER
12 THALLIUM
13 VANADIUM
14 ACETONE
15 BENZENE
16 CARBON DISULFI
16 CARBON DISULFI
18 HETHYLISOBUTYL

0.08+00
0.08+00
0.08+00
0.08+00
0.08+00
0.08+00
0.08+00
0.08+00
0.08+00

CADMIUM (FOOD)
CADMIUM (WATER
CHROMIUM

0.02+00

0.02+00

20 XYLENES, TOTAL
21 1,2-DIMETHYLBE
22 1,3-DIMETHYLBE
23 2,4-DIMETHYLPE
24 2-METHYLNAPHTH

19 TOLUENS

0.02+00

25 2-METHYLPHENOL

26 ACENAPHTHENE
27 ANTHRACENE
28 BENZO [a] ANTH
29 BENZO [b] PYRB
30 BENZO [b] FLUO
31 BENZO [c] FLUO
31 BENZO [k] FLUO
31 BIS (2-ETHYLHE
34 CHRYEENE
35 DIBENZ [a,h] A
36 FLUORENE
37 FLUORENE
38 INDENO [1,2,339 MAPHTHALENE
40 PHENANTERENE

0.02+00 0.02+0

00+30 00+30 00+30 00+30

PYRENE TONZEG

SITE NAME: CAMERON STATION OPERABLE UNIT: DISK 3
FILE NAME: POP5
LAST UPDATED: 06/05/92

LIFETIME RISK SURPLARY

	61 TRICHLOROFLUOR	60 2-(2,4,5-TRICE	59 2,4-DICHLOROPH	58 2,4,5-TRICHLOR	57 PCB 1260	56 METHOXYCHLOR	55 LINDANE / GAMA	54 HEPTACHLOR EPO	53 HEPTACHLOR	52 GAMMA-CHLORDAN	51 DIELDRIN	50 BETA-ENDOSULFA	49 BENZOIC ACID	48 BENZALDEHYDE	47 ALPEA CHLORDAN	46 ALDRIN		44 Z,Z-BIS (PAKA-	43 2,2-BIS (PARA-	
	0.02+00	0.02+00	0.0E+00	0.02+00	8.2E-10	2.8E-09	0.0E+00	1.7E-11	1.1E-11	2.1E-10	8.5E-12	5.0E-11	0.02+00	0.02+00	2.6E-10	0.0E+00	2.6E-09	3.1E-10	8.1E-09	
	X	¥.	N.A.	NA	4.52-09	N.A.	N.A.	N.	K.	A.A.	K N	KN.	NA.	V N	NA AN	KN.	¥	NA.	4.5	
TOTAL PATHWAY CANCER RISK																				
1E-08	X	K N	AN	K N	6E-09	X X	02+00	2E-10	5E-11	3E-10	12-10	K N	K.	K K	3E-10	00+30	6E-10	1E-10	3E-09	
32-08	X,	K.	X.	K N	32-08	×	×	KN	KN	¥	K K	KX	X.	¥ '	×	N.	N.	X.	XX	
02+00																				
00+00																				
02+00																				

POPULATION TOTAL EXCESS RISK TOTAL PATHWAY CANCER RISK 4E-08 1E-08

0E+00

)		i											
)		=	07+00	ž	08+00)		.	_	0-02+00	0.08+00	17 BYBENE	
		*	08+00	05+00	05+00			×.	_	0.05+00	0.02+00		
		\$	02+00	×	02+00			K		0.05+00	0.02+00	40 PHENANTHRENE	
		*	08+00	A.	00+30			X.	0.03+00	0.05+00	0.0B+00	39 MAPHTHALENE	
		XX.	02+00	XN.	02+00			X.	0.05+00	0.02+00	- 0.08+00	38 INDENO [1,2,3-	
		KK	08+00	AN	0E+00			K N	0.02+00	0.02+00	0.02+00	37 FLUORENE	
		KN.	08+00	AN	0E+00			AN.	0.05+00	0.02+00	0.0E+00	36 FLUORANTHENS	
		KX.	02+00	X N	00+00			KN	0.02+00	0.02+00	•	35 DIBENE (a,h) A	
		XX.	02+00	AN.	0E+00			AN .	0.02+00	0.02+00	0.08+00	34 CHRYSENS	
		X.	18-07	08+00	0E+00			N.A.	2.18-09	0.02+00	B . 0.0E+00	33 BIS (2-ETHYLHE	
•		N.A.	02+00	AN	0E+00			AN	0.05+00	0.02+00	0.08+00	32 BENZO [k] FLUO	
		X.	02+00	X.	0E+00			KN	0.02+00	0.02+00	0.02+00	31 BENZO [g,h,i]	
		XX	02+00	VN	00+30			KN.	0.02+00	0.02+00	0.08+00	30 BENZO [b] FLUO	
		AN	05+00	AN	0E+00			X.	0.02+00	0.0E+00	0.0E+00	29 BENZO [a] PYRE	
	•	V N	08+00	AN	0E+00		•	XX.	0.03+00	0.02+00	H 0.0E+00	28 BENZO (a) ANTH	
		KN.	02+00	A N	00+00			K.	0.02+00	0.02+00	0.08+00	27 ANTHRACENE	
		XX.	02+00	XN.	00+30			KN	0.02+00	0.02+00	0.02+00	26 ACENAPHTHENS	
		A.A.	×	X.	AN.			XN.	0.03+00	0.02+00	0.03+00	25 2-METHYLPHENOL	
		AN.	02+00	AN	02+00			XN.	0.05+00	0.02+00	H 0.0B+00	24 2-METHYLNAPHTH	
		XX	02+00	02+00	00+00			XN.	0.02+00	0.02+00	E 0.0E+00	23 2,4-DIMSTHTLPH	
		XX.	02+00	02+00	0E+00			K.	0.02+00	0.02+00	B 0.0B+00	22 1,3-DIMETRYLBE	
		XX.	08+00	02+00	0E+00			KN	0.02+00	0.02+00	B 0.05+00	21 1,2-DIMETHYLBE	
		AX.	02+00	02+00	06+00			X.	0.02+00	0.02+00	•	20 XYLENES, TOTAL	
		XX	0B+00	02+00	0E+00			XN.	0.02+00	0.02+00	0.05+00	19 TOLUENS	
		X.	05+00	02+00	00+00			KN.	0.02+00	0.02+00	L 0.0E+00	16 METHYLISOBUTYL	
		XX.	02+00	02+00	0E+00			XX	0.02+00	0.02+00	0.02+00	17 ETHYLBENZENE	
		A.K	02+00	02+00	0E+00			X.	0.05+00	0.02+00	I 0.0E+00	16 CARBON DISULFI	
		X.	N.	V N	KN.			YN	0.02+00	0.02+00	0.0E+00	15 BENZENS	
		VX	8E-09	92-09	3E-08			KN	7.88-09	9.1E-09	3.22-08	14 ACETONE	
		¥.	08+00	0E+00	0E+00			KN.	0.05+00	0.02+00	0.0B+00	HUIDANAVA ET	
		XX.	02+00	00+30	0E+00			KN	0.05+00	0.02+00	0.08+00	12 THALLIUM	
		Y.K	1E-06	1E-06	6E-07			X.	6.62-09	1.52-09	3.02-09	11 SILVER	
		XX.	A.	Y.N	A.N.			KN	0.02+00	1.85-08	3.58-08	10 NITRITE	
		X.	YN	YN .	XN.			NA.	0.02+00	3.5E-06	7.0E-06	9 NITRATE	
		**	02+00		1E-05			XN.	0.02+00	1.02-07	2.08-07	8 NICKEL	
		XX.	25-06		8E-06			NA.	5.7E-10	1.2E-09	2.48-09	7 MERCURY	
		K	22-06	28-	2E-06			N.	4.4E-08	2.4E-08	4.8E-08	6 CHROMIUM	
		X	KX		A.N			0.02+00	0.02+00	8.0E-09	R 1.6E-08	5 CADHIUH (WATER	
		,	KY.		KN KN			0.0E+00	0.02+00	0.02+00) 0.0E+00	4 CADMIUM (FOOD)	
		\$	32-07		* 05+00	÷		KN.		0.02+00	0.02+00	3 BERYLLIUM	
		¥	28-06	3E-05	6E-06			A.N.	1.65-07	2.0E-07	4.0E-07	2 BARIUM	
_	02+00	*	02+00		0E+00	0.0E+00	0.02+00	Y.	0.02+00	0.05+00	0.02+00	1 ARSENIC	
(FROM WS6	(FROM WS5)	(FROH WS4)	(FROM WS3)	(FROM WS2)	(FROM WS1)	(FROM WS6)	(FROM WS5)	(FROM WS4)	(FROM WS3)	(FROM WS2)	(FROM WS1)	CHENICAL NAME	
		DERHAL	ORAL		ORAL	0	0	DERWAL	ORAL	DERMAL	ORAL		
		SEDIMENT .	SEDIMENT	T SURFACE WAT SEDIMENT	SURFACE WAT		0				SURPACE WAT		
			BACKLICK RU	BACKLICK RU				BACKLICK			BACKLICK RU		
5 SCENARIO 6	SCENARIO 5	SCENARIO 4	SCENARIO 3	SCENARIO 2	SCENARIO 1	SCENARIO 6	SCENARIO 5	SCENARIO 4	SCENARIO 3	SCENARIO 2	SCENARIO 1	•	
		OTIENT	SUBCHRONIC HAZARD QUOTIENT	SUBCHRON				SUBCHRONIC DAILY INTAKE (mg/kg/day)	DAILY INTAK	SUBCHRONIC			
-													

CURRENT HADER (BR)

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CURRENT (BR)

SUBCHRONIC EXPOSURE SUMMARY

SUBCHRONIC RISK SUMMARY

SITE NAME: CAMERON STATION
OPERABLE UNIT: DISK 4
FILE NAME: POP1
LAST UPDATED: 06/05/92

	60 2-(2,4,5-TRICH 61 TRICHLOROFLUOR	58 2,4,5-TRICHLOR 59 2,4-DICHLOROPH			54 HEPTACHLOR EPO		51 DIELDRIN			46 ALDRIN 47 ALPHA CHIORDAN	45 2,2-BIS (PARA-	43 2,2-BIS (PARA-
	0.02+00	0.05+00	0.02+00	0.05+00	0.05+00	1.42-10	0.02+00	1.62-07	0.02+00	0.0E+00	3.02-10	0.0E+00
	0.0E+00	0.0E+00	0.02+00	0.02+00	0.02+00	7.0E-09	0.08+00	5.82-07	0.02+00	0.08+00	3.62-08	0.02+00
	0.0E+00 0.0E+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.05+00	2.1E-09	0.05+00	0.02+00	1.1E-08	0.0E+00
	K KN	AN AN	0.02+00 VN	K.	X X	NA :	z ×	NA.	N X	X.	N X	Z X
PATHWAY SUH (HI) POPULATION TOTAL												
. 5 3 8 11 1 1 0 0 3 5 5	0E+00 00+30	08+00 08+00	0E+00	00+00	0E+00	2E-06	0E+00	46-08	00+30	02+00	N X	02+00
5 E8 - 0 3	00+30 VN	0E+00	00+30	0E+00	0E+00	1E-04	0E+00	1E-07	00+00	0E+00	N X	00+30
75-06	02+00 00+30	0E+00	4N 00+30	02+00	0E+00	0E+00	0E+00	5E-10	08+00 08+00	00+00	3 3	0E+00
. OR++00	KN KN	r k	¥	¥ :	3 3	z :	E	×	¥	. \$	8 8	, K
OB+ •											٠	
0E+00												

CHRONIC EXPOSURE SUMMARY

CURRENT WADER (BR)

CHRONIC RISK SUMMARY

CURRENT WADER (BR)

																٠, ٠.	:	· ·•.														. • •																	
Chicago Chic		13 BYBENE				_			35 DIBENS (a,h) A	34 CHRYSENS	33 BIS (2-ETHYLHE	32 BENZO [k] FLUO	31 BENZO [9,h,i]	oult [d] bruse of	29 BENZO [a] PYRE	28 BENZO (a) ANTH	27 ANTERACENE	26 ACENAPHTHENE	25 2-METHYLPHENOL	24 2-METHYLNAPHTH	23 2.4-DIMETHYLPH	22 1.3-DIMETRYLES	21 1.2-DIMETHYLBE	20 XYLENES, TOTAL	19 TOLUENE	18 METHYLISOBUTYL	17 ETHYLBENZENS	16 CARBON DISULFI	15 BENZENS	14 ACETONE	HOIDAWAY E1	12 TEALLIUM	11 SILVER	10 NITRITS	9 NITRATE	BUCKEL	7 MERCURY	6 CHROMIUM	5 CADHIUM (WATER	A CADMIUM (FOOD)	3 BERYLLIUM	2 BARIUM					-	1	•
Note	;	0.08+00	0.08+00	0.02+00	0.02+00	0.08+00	0.08+00	0.02+00	0.02+00	0.02+00	0.08+00	0.08+00	0.08+00	0.08+00	0.05+00	0.05+00	0.02+00	0.08+00	0.05+00	0.05+00	0.05+00	0.05+00	0.02+00	0.02+00	0.05+00	0.05+00	0.02+00	0.08+00	0.05+00	3.25-08	0.02+00	0.02+00	3.02-09	3.5E-08	7.0E-06	2.08-07	2.42-09	4.82-08	1.62-08	0.02+00	0.02+00	4.05-07	0.02+00	(FROM WS1)		SURPACE HAT	C	١	
Note		0.02+00	0.05+00	0.02+00	0.05+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.05+00	0.02+00	0.05+00	0.03+00	0.02+00	0.05+00	0.05+00	0.02+00	0.02+00	0.0E+00	0.02+00	0.02+00	0.02+00	9.1E-09	0.02+00	0.0E+00	1.52-09	1.82-08	3.5E-06	1.05-07	1.22-09	2.42-08	8.02-09	0.02+00	0.02+00	2.0E-07	0.02+00	(FROM WS2)		SURFACE WAT	BACKLICK RU	SCENARIO 2	CHRONIC DAIL
		0.02+00	0.02+00	0.02+00	0.03+00	0.02+00	0.08+00	0.02+00	0.02+00	0.02+00	2.15-09	0.02+00	0.02+00	0.02+00	0.02+00	0.05+00	0.02+00	0.02+00	0.02+00	0.05+00	0.02+00	0.02+00	0.05+00	0.02+00	0.02+00	0.05+00	0.02+00	0.02+00	0.03+00	7.82-09	0.02+00	0.02+00	6.6E-09	0.02+00	0.02+00	0.02+00	5.7E-10	4.42-08	0.02+00	0.02+00	1.62-09	1.68-07	0.02+00	(FROM WS3)	ORAL	SEDIMENT	20	SCENARIO 3	Y INTAKE (no
SCENARIO 6 SCENARIO 1 SCENARIO 2 SCENARIO 4 SCENARIO 6 DESCRIPTOR DI SCENARIO 7 SCENARIO 7 DESCRIPTOR DI SCENARIO 8 SCENARIO 8 SURPACE NAT SURPACELIZER RU BACELIZER RU DESCRIPTOR RU BACELIZER RU B		K.	X.	KN.	XX.	NA.	X.	XX.	XX.	X.	XN.	KN	XN.	XN.	KN	AN	NA.	X.	A.	X.	AN.	Y.	A.	KN.	KN	AN	NA.	NA.	AN.	NA.	X.	AN.	KN	K	KN.	XN.	VN	NA.	0.0E+00	0.02+00	XX	X.	X.	(FROM WS4)	DERMAL	SEDIMENT	BACKLICK RU		g/kg/day)
SCENALIO SCENALIO 2 SCENALIO 3 SCENALIO 5 SCENALIO 6																•																											0.0E+00	(FROM WS5)	0	0	0	SCENARIO 5	
0 1 SCENNARIO 2 SCENARIO 3 SCENARIO 8 DECHALICK RU 0 NAT SURPACE HAT SEDIMENT GEDIMENT 0 0 0 0 0 400 DEPOS CPAL BACKLICK RU 0 0 0 0 511 (FROM MS2) (FROM MS3) (FROM MS4) (FROM MS5) (FROM MS5) (FROM MS5) (FROM MS4) (FROM MS5) (FROM MS5) (FROM MS4) 600 DE+00 DE+00 DE+00 DE+00 DE+00 NA OE+00 -0.5 1E-04 DE+00 DE+00 NA NA OE+00 NA -0.6 1E-06 1E-06 NA NA NA NA NA NA -0.7 1E-06 1E-06 NA NA NA NA NA -0.7 1E-06 1E-07 NA NA NA NA NA)										•																															0.0E+00	(FROM WS6)	0	0			
SCENARIO 5 SCENA 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			00+30	00+30	01:00	0000	00+00	00+00	00.00	00+30			02+00	02+00	02+00	02+00	02+00	00+30	02+00	0E+00	0E+00	02+00	00+30	00+30	02+00	02+00	0E+00	02+00	XX	3E-07	00+00	02+00	6E-07	4E-07	4E-06	12-05	82-06	1E-05	2E-05	00+30	00+30	6E-06	02+00	(FROM WS1)		ĆE	BACKLICK RU	SCENARIO 1	
SCENARIO 5 SCENA 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		XX	08+00	NA	: 3	E 3	27		= 3	2 2	00+30	NA.	XX	NA.	¥.	× ×	X.	XN.	05+00	KN.	0E+00	02+00	00+30	00+00	08+00	02+00	00+30	00+30	××	9E-08	0E+00	02+00	1E-06	XX.	X.	1E-04	2E-05	1E-04	1E-04	0E+00	0E+00	3E-05	0E+00	(FROM WS2)	DERMAL	SURFACE WAT	BACKLICK RU		CHRONIC 1
SCENARIO 5 SCENA 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		02+00	08+00	05+00	0 0 0 0	9 5 5 6 6	00400	04400	0000	07100	18-07	00+00	01.00	00+100	00+30	00+30	0E+00	02+00	02+00	02+00	02+00	00+30	02+00	08+00	00+30	00+30	02+00	02+00	NA.	80-18	00+30	02+00	12-06	00+20	02+00	00+30	22-06	9E-06	00+30	00+30	3E-07	2E-06	00+30	(FROM WS3)	ORAL	SEDIMENT	BACKLICK RU	SCENARIO 3	HAZARD QUOTII
SCENA.		A.K	75		= 3	£ 3	£ \$	¥ 4		2 3	¥ 3	5 . A	2 2		. X	XX.	XX.	X	K.	XX.	X.	X	*	*	*		NA.	NA.	, A			: Z	× ×	*	XX.	X.	X	XX.	02+00	02+00	X	N.	X	(FROM WS4)	DERMAL	SEDIMENT	BACKLICK RU	SCENARIO 4	ENT
SCENARIO 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0																	a.									•																	02+30	(FROM WS5)		. 0			
•)																																									05+00	(FROM WS6)		, c	. 0	SCENARIO 6	

SITE NAME: CAMERON STATION OPERABLE UNIT: DISK 4 FILE NAME: POP1 LAST UPDATED: 06/05/92

0.0E+00 0.0E+00 NA 0.0E+00 0E+00 NA 3.8E-08 1.1E-08 NA NA NA NA NA 0.0E+00 0.0E+00 NA NA NA NA NA 0.0E+00 0.0E+00 NA 0.0E+00 0.0E+00 0.0E+00 NA 0.0E+00 0.0E+00 NA 0.0E+00 0.0E+00 0.0E+00 NA 0.0E+00 0.0E+00 NA 0.0E+00 0.0E+00 0.0E+00 0.0E+00 NA 0.0E+00 0.0E+00 NA 0.0E+00 0.0E+00 0.0E+00 0.0E+00 NA 0.0E+00 0.0E+00 NA 0.0E+00 0.0E+00 0.0E+00 NA 0.0E+00 0.0E+00 NA 0.0E+00 0.0E+00 0.0E+00 NA 0.0E+00 0.0E+00 NA 0.0E+00 0.0E+00 NA 0.0E+00 0.0E+00 NA 0.0E+00 0.0E+00 NA 0.0E+00 0.0E+00 NA 0.0E+00 NA 0.0E+00 NA 0.0E+00 0.0E+00 NA 0.0E+00 NA 0.0E+00 NA 0.0E+00 0.0E+00 NA 0.0E+00 NA 0.0E+00				56-03	POPULATION TOTAL			
0.0E+00 NA 0E+00 0E+00 0E+00 0E+00 8 1.1E-08 NA NA NA NA NA NA NA 0.0E+00 NA 0.0E+00 0E+00	02+00	12-05	5E-03	6E-05	PATHWAY SUM (HI)			
0.000+00 NA 00+00 00+00 00+00 00+00 8 1.12-08 NA NA NA NA 9 0.02+00 NA 0.02+00 0.02+00 0.02+00 0.02+00 10.02+00 NA 0.02+00 0.02+00 0.02+00 0.02+00 0.02+00 10.02+00 NA 0.02+00 0.02+00 0.02+00 0.02+00 0.02+00 10.02+00 NA 0.02+00 0.02+00 0.02+00 0.02+00 10.02+00 NA 0.02+00 0.02+00 0.02+00 10.02+00 <td< td=""><td>¥</td><td>02+00</td><td>00+30</td><td>0E+00</td><td></td><td>K.</td><td>0.05+00</td><td>0.0E+00</td></td<>	¥	02+00	00+30	0E+00		K.	0.05+00	0.0E+00
0.0E+00 NA 0E+00 0E+00 0E+00 0E+00 1.1E-08 NA NA NA NA 1.1E-08 NA NA NA NA NA 1.1E-08 NA NA NA NA NA 0.0E+00 NA 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 NA 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 NA 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 NA 0.0E+00 0.0E+00 0.0E+	AN	0E+00	N.	0E+00		KN NA	0.08+00	X.
0.0E+00 NA 0E+00 0E+00 0E+00 0E+00 1.1E-08 NA NA NA NA 1.1E-08 NA NA NA NA NA 1.1E-08 NA 0.00 0E+00 0E+00 0E+00 0E+00 0.0E+00 NA 0.00 0E+00 0E+00 0E+00 0E+00 0.0E+00 NA 0E+00 0E+00 0E+00 0E+00 0E+00 0.0E+00 NA NA NA NA 0.0E+00 NA 0E+00 0E+00 0E+00	K	0E+00	0E+00	0E+00		KN	0.02+00	0.02+00
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0.0E+00 NA 0E+00 0E+00 0E+00 0E+00 1.1E-08 NA NA NA NA NA NA 1.1E-08 NA NA <t< td=""><td>K</td><td>N.</td><td>NA</td><td>NA.</td><td></td><td>0.02+00</td><td>0.02+00</td><td>0.02+00</td></t<>	K	N.	NA	NA.		0.02+00	0.02+00	0.02+00
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0.0E+00 NA 0E+00 0E+00 0E+00 0E+00 1.1E-08 NA NA NA NA 8 1.1E-08 NA NA NA NA NA 9 0.0E+00 NA 0E+00 0E+00 0E+00 0E+00 0.0E+00 NA 1E-06 5E-03 0E+00 0.0E+00 NA 0E+00 0E+00 0E+00	¥	00+30	0E+00	· 0E+00		X.	0.02+00	0.0E+00
0.0E+00 NA 0E+00 0E+00 0E+00 1.1E-08 NA NA NA NA 0.0E+00 NA NA NA NA	KN	0E+00	02+00	00+30		KN	0.02+00	0.02+00
0.0E+00 NA 0E+00 0E+00 0E+00 1.1E-08 NA NA NA NA 8 1.1E-08 NA NA NA NA 9 0.0E+00 NA 0E+00 0E+00 0E+00 1 0.0E+00 NA 1E-06 5E-03 0E+00 0 0.0E+00 NA 0E+00 0E+00 0E+00 1 0.0E+00 NA 0E+00 0E+00 0E+00 0 0.0E+00 NA 0E+00 0E+00 0E+00 0 0.0E+00 NA 0E+00 0E+00 0E+00 0 0.0E+00 NA 0E+00 0E+00 0E+00	KN	0E+00	02+00	0E+00		X.	0.02+00	0.02+00
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0.0E+00 NA 0E+00 0E+00 0E+00 1.1E-08 NA NA NA NA 1.0E+08 NA NA NA NA 1.0E+09 NA 0E+00 0E+00 0E+00 1.0E+00 NA 1E-06 5E-03 0E+00 1.0E+00 NA 0E+00 0E+00 0E+00 1.0E+00 NA 0E+00 0E+00 0E+00 1.0E+00 NA 0E+00 0E+00 0E+00	K N	00+30	0E+00	0E+00		KN.	0.05+00	0.02+00
0.0E+00 NA 0E+00 NA	KN	0E+00	0E+00	0E+00		KK	0.02+00	0.02+00
0.0E+00 NA 0E+00 0E+00 0E+00 1.1E-08 NA NA NA NA 1.1E-08 NA NA NA NA 1.0E-08 NA NA NA NA 0.0E+00 NA 0E+00 0E+00 0E+00 0.0E+00 NA 1E-06 5E-03 0E+00 0.0E+00 NA 0E+00 0E+00 0E+00	NA.	5E-10	1E-07	4E-08		KN	2.1E-09	5.8E-07
0.0E+00 NA 0E+00 0E+00 0E+00 1.1E-08 NA NA NA NA 1.1E-08 NA NA NA NA 0.0E+00 NA 0E+00 0E+00 0E+00 0.0E+00 NA 0E+00 0E+00	KX	0E+00	00+30	0E+00		KN KN	0.02+00	0.0E+00
0 0.0E+00 NA 0E+00	K N	0E+00	52-03	. 1E-06		AN	0.02+00	2.98-07
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	KN	0E+00	02+00	0E+00		X.	0.02+00	0.0E+00
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	K	XX	X X	KN.		A.N.	1.1E-08	3.62-08
0.0E+00 NA 0E+00 0E+00 0E+00	KN	X.	KN	AN		ΑN	1.1E-08	3.8E-08
	K N	0E+00	02+00	00+30		KN.	0.0E+00	0.02+00

43 2,2-BIS (PARA44 2,2-BIS (PARA45 2,2-BIS (PARA46 ALDRIN
47 ALPHA CHLORDAN
48 BENZALDEHYDE
49 BENZOLC ACID
50 BETA-ENDOSULFA
51 DIELDRIN
52 GAMMA-CHLORDAN
53 HEPTACHLOR
54 HEPTACHLOR
55 LINDANE / GAMA
56 HETHOXYCHLOR
57 PCB 1260
58 2,4,5-TRICHLOROPH
60 2-(2,4,5-TRICH
61 TRICHLOROFLUOR

0.0E+00 2.7E-10 3.0E-10 0.0E+10 0.0E+00 1.6E-07 0.0E+00 0.0E+00

00+30

0E+00

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LIFETIME EXPOSURE SUMMARY

CURRENT (BR)

	İ	LIFETIME AVI	RAGE DAILY	12				LIFETI	LIFETIME EXCESS CA	CANCER RISK		
	BACKLICK RU	BACKLICK RU BACKLICK RU	BACKLICK RU	BACKLICK RU	O OTWWRDS	0 PURNANTO 9	BACKLICK RU	BACKLICK RU BACKLICK		BU BACKLICK BU	SCENARIO 5	SCENARIO 6
		SURFACE WAT SEDIMENT	SEDIMENT	SEDIMENT	٥	0	SURFACE WAT				0	0
	ORAL	DERMAL	ORAL	DERMAL	0	0	ORAL	DERMAL	ORAL	DERMAL	•	0
CHEMICAL NAME	(FROM WS1)	(FRON WS2)	(FROM WS3)	(FROM WS4)	(FROM WSS)	(FROM WS6)	(FROM WSI)	(FRON WS2)	(FROM WS3)	(FROM WS4)	(FROM WS5)	(FROM WS6)
ARSENIC	0.02+00	0.05+00	0.02+00	X	0.02+00	0.0E+00	02+00	0E+00	02+00	XX.	02+00	0E+00
BARIUM	3.42-08	1.7E-08	1.4E-08	X.		•	AN	KN	XX.	KN.		
BERYLLIUM	0.05+00	0.02+00	1.42-10	X.			02+00	00+30	6E-10	Z,		
CADMIUM (FOOD)	0.02+00	0.02+00	0.02+00	0.02+00			AN	AN	A.K	KX.		
CADMIUM (WATER	1.4E-09	6.82-10	0.02+00	0.02+00			NA.	N.	X.	XX.		
CHROMIUM	4.15-09	2.02-09	3.85-09	K N			NA	AN	K.	KH		
MERCURY	2.02-10	1.00E-10	4.8E-11	A.N.			AN.	X N	K	XX		
NICKEL	1.7E-08	8.52-09	0.02+00	K N			AN	KN KN	KN	XX		
NITRATE	6.08-07	2.95-07	0.02+00	N.			XN.	A.	XX.	K X		
0 NITRITE	3.0E-09	1.55-09	0.0E+00	XN.			AN	KN	XX.	KK		
1 SILVER	2.68-10	1.32-10	5.6E-10	XX			N.	X.	KN.	XX		
2 TEALLIUM	0.02+00	0.02+00	0.08+00	AN			A.A.	A.N.	X.	YK		
HUIDANAV C	0.02+00	0.0E+00	0.02+00	AN			AN	X.	XN.	XX		
4 ACETONE	2.8E-09	7.72-10	6.6E-10	X.N			K N	AN.	KX.	N.		
5 BENZENE	0.02+00	0.02+00	0.08+00	XX			02+00	02+00	02+00	KK.		
6 CARBON DISULFI	0.0E+00	0.02+00	0.02+00	X.			NA.	X.	AN	A.		
7 ETHYLBENZENS	0.02+00	0.02+00	0.02+00	XN.			AN	KN.	K	KN		
8 METHYLISOBUTYL	0.05+00	0.05+00	0.02+00	X.			X	KX	X.	AN.		
9 TOLUENS	0.02+00	0.02+00	0.05+00	N.			NA.	XX	E	XX		
O XILENES, TOTAL	0.02+00	0.08+00	0.02+00	N			2	N.	**	*		
1 1,2-DIMETRYLBE	0.02+00	0.02+00	0.02+00	NA.				X.		: Z		
a leastrande	0.08400		0.08400	2 2			2 3	¥ 4	E 3	£ 2		
4 2-METHYLNAPHTH	0.02+00	0.08+00	0.02+00	¥ ;			X :	¥ ;	* :	¥ ;		
5 2-METHYLPHENOL	0.02+00	0.02+00	0.03+00	K N			AN.	ZY.	XX.	XX.		
6 ACENAPHTHENE	0.05+00	0.02+00	0.02+00	K N			AN.	KN	KK	KK		
7 ANTHRACENE	0.02+00	0.02+00	0.02+00	KK			AN	XN.	, KK	XX		
BENZO (a) ANTH	0.0B+00	0.02+00	0.02+00	KN.			0E+00	KN	02+00	XX.		
9 BENZO (a) PYRE	0.08+00	0.02+00	0.02+00	KN.			02+00	KN	0E+00	KK		
O BENZO [b] PLUO	0.02+00	0.02+00	0.02+00	KK			00+00	KN KN	02+00	YN.		
1 BENZO [g,h,i]	0.02+00	0.02+00	0.02+00	KK			XX.	KN	XX	KK		
2 BENZO (k) FLUO	0.02+00	0.05+00	0.02+00	KN KN			02+00	KN.	00+30	XX		
3 BIS (2-ETHYLHE	0.02+00	0.05+00	1.82-10	KN			02+00	0E+00	3E-12	KK		
4 CHRYSENE	0.02+00	0.02+00	0.02+00	AN.			02+00	KN	02+00	YK		
5 DIBENZ [a,h] A	0.02+00	0.02+00	0.02+00	AN			02+00	KN.	02+00	YK		
6 FLUORANTHENS	0.02+00	0.02+00	0.02+00	AN.			AN	KN	XX	XX		
7 FLUORENS	0.02+00	0.05+00	0.02+00	AN			XX.	KK	KX	XX		
8 INDENO [1,2,3-	0.02+00	0.02+00	0.05+00	K K			02+00	KX	02+00	KK.		
9 NAPHTHALENE	0.02+00	0.03+00	0.02+00	KN.			AN	XX	X.	**		
O PHENANTHRENE	0.02+00	0.01+00	0.02+00	KN.			X.	X	*	XX.		
1 PHENOL	0.02+00	0.02+00	0.08+00	A.A.			X.	KN.	*	XX.		
2 PYRENE	0.02+00	0.02+00	0.02+00	VN)	V N	N.	XX	XX		

LIPETIMB RISK SUMMARY

CURRENT WADER (BR)

SITE NAME: CAMERON STATION OPERABLE UNIT: DISK 4
FILE NAME: POP1
LAST UPDATED: 06/05/92

					3E-08	POPULATION TOTAL EXCESS RISK					
0 05+00	02+00	00+30	1E-09	3E-08	4E-11	TOTAL PATHWAY CANCER RISK					
		X	X.	۸×	X.		A N	0.02+00	0.02+00	0.02+00	TRICHLOROFLUOR
		K N	X	X N	A N		XN	0.02+00	AN	0.02+00	?-(2,4,5-TRICH
		X.	A.	V N	X.	?	K.	0.0E+00	0.0E+00	0.02+00	, 4-DICHLOROPH
		K N	N.	N A	X N		K.	0.02+00	K.	0.02+00	,4,5-TRICHLOR
		0E+00	0E+00	0E+00	0E+00		0.02+00	0.0E+00	0.02+00	0.0E+00	CB 1260
		K.	N.	AN	N.		A.N	0.02+00	0.02+00	0.02+00	ETHOXYCHLOR
		XH.	0E+00	0E+00	0E+00		AN.	0.05+00	0.0E+00	0.02+00	CINDANE / GAMA
		K.	0E+00	0E+00	0E+00		AN	0.02+00	0.0E+00	0.02+00	EPTACHLOR EPO
		¥	0E+00	0E+00	05+00		AN	0.02+00	0.0E+00	0.02+00	EPTACHLOR
		KN	00+30	8E-10	2E-11		AN	0.0E+00	5.9E-10	1.2E-11	HANNA-CHLORDAN
		K.	00+30	02+00	00+00		K N	0.02+00	0.02+00	0.02+00	TELDRIN
		X.	N	ĸ.	KN KN		N.	0.02+00	0.02+00	0.02+00	BTA-ENDOSULFA
		X.	N.	KK	K N		K N	1.8E-10	4.9E-08	1.4E-08	ENZOIC ACID
		K.	X.	AN	K.		K N	0.02+00	0.0E+00	0.02+00	ENTALDERYDE
		K.	0E+00	3E-08	7E-12		AN	0.05+00	2.4E-08	5.6E-12	LPHA CHLORDAN
		K.	02+00	0E+00	02+00		VN	0.02+00	0.0E+00	0.02+00	LDRIN
		N.	2E-10	7E-10	6E-12		X N	9.42-10	3.1E-09	2.6E-11	,2-BIS (PARA-
		ΚN	3E-10	1E-09	8E-12		AN	9.4E-10	3.2E-09	2.3E-11	,2-BIS (PARA-
		A.	0E+00	0E+00	00+30		XN.	0.02+00	0.0E+00	0.02+00	, 2-BIS (PARA-

43 2,2 44 2,2 45 2,2 46 A1,2 47 A1,2 48 BENN 49 BENN 50 BETT 51 DIE 52 GAM 55 HEP 53 HEP 55 HEP 55 FCB 56 FCT 66 2-4 66 2-4

SUBCHRONIC EXPOSURE SUMMARY

CURRENT (HR)

41	•	9	38	37	36	35	34	33	32	31	30	29	28	27	26	25	2	23	22	21	20	. 19	∷	17	16	15	=	=	12	=	10	9	•	7	Φ.	S	_	w	~							
TONBHE	PHENANTHRENB	HAPITALENE	INDENO [1,2,3-	FLUORENE	FLUORANTHENE	DIBENZ (a,h) A	CHRYSENE	BIS (2-ETHYLHE	BENZO [k] FLUO	BENZO (g,h,i)	BENZO [b] FLUO	BENZO (a) PYRE	BENZO [a] ANTH	ANTERACENE		2-METHYLPHENOL	2-KETHYLNAPHTH	2,4-DIMETHYLPH	1, 3-DIMETHYLBE	1,2-DIMETHYLBE	XYLENES, TOTAL	TOLUENE	HETHYLISOBUTYL	ETHYLBENZENE	CARBON DISULFI	BENZENE	ACETONE	MUIDANAV	THALLIUM	SILVER	NITRITE	NITRATE	NICKEL	MERCURY	CHROMIUM	CADMIUM (WATER	CADHIUM (FOOD)	BERYLLIUM	BARIUM	ARSENIC	CHEMICAL NAME			_		1
0.0E+00	0.02+00	0.02+00	0.02+00	0.0E+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.0E+00	0.02+00	0.02+00	0.0E+00	0.0E+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.0E+00	3.2E-08	0.02+00	0.02+00	1.6E-09	3.52-08	1.4E-05	2.0E-07	2.4E-09	4.8E-08	3.3E-08	0.0E+00	0.05+00	2.5E-07	0.0E+00	(FROM WS1)	ORAL	SURFACE WAT	HOLMES RUN	SCENARIO 1	
0.02+00	0.02+00	0.08+00	0.02+00	0.02+00	0.02+00	0.02+00	0.0E+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.0E+00	0.0E+00	0.02+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.0E+00	9.1E-09	0.0E+00	0.02+00	8.0E-10	1.8E-08	7.2E-06	1.02-07	1.2E-09	2.4E-08	1.6E-08	0.0E+00	0.02+00	1.3E-07	0.0E+00	(FROM WS2)	DERMAL	SURPACE WAT SEDIMENT	HOLMES RUN	SCENARIO 2	SUBCHRONIC
0.0E+00 2.0E-08	Z.1E-08	0.02+00	0.02+00	2.1E-09	2.1E-08	0.02+00	1.1E-08	2.1E-09	7.82-09	0.02+00	7.3E-09	7.8E-09	9.12-09	2.1E-09	2.1E-09	0.02+00	0.0E+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.0E+00	7.8E-09	0.02+00	0.02+00	6.6E-09	0.02+00	0.02+00	0.02+00	5.7E-10	7.0E-08	0.0E+00	0.0E+00	1.1E-08	1.8E-07	0.02+00	(FROM WS3)	ORAL	SEDIMENT	HOLMES RUN	SCENARIO 3	DAILY INTAKE
X X	X.	KN .	X.	AN	AN	AN	Y.	N.	XN.	KN.	AN	AN	, AN	KN.	NN.	AN.	AN.	XN.	A.N.	AN.	KN.	KN	KN.	N.	KN.	N.	KN.	KN.	. NA	AN.		KN.	KN.	KN.	AN	0.0E+00	0.02+00	K N	KN.	N.	(FROM WS4)	DERMAL	SEDIMENT	HOLMES RUN	SCENARIO 4	(mg/kg/day
																																								0.0E+00	(FROM WS5)	0	0	0	SCENARIO 5	
)																																								0.02+00	(FROM WS6)	0	0	0	SCENARIO 6	
0E+00	02+00	00+00	02+00	0E+00	00+30	00+30	00+30	0E+00	0E+00	00+00	00+30	0E+00	0E+00	00+30	00+30	AN	0E+00	06+00	02+00	02+00	00+30	0E+00	00+30	0E+00	0E+00	NA.	3E-08	0E+00	0E+00	JE-07	AN	NA.	1E-05	8E-06	2E-06	KN.	AN	0E+00	4E-06	0E+00	(FROM WS1)	ORAL	SURFACE WAT	HOLMES RUN	SCENARIO 1	
NA 00+30	X.	¥.	XN.	X.	YN	YN	A.N.	00+30	X.	X.N	KN	Y.N	X.	AN	AN	N.A.	X.	00+00	00+00	0E+00	0E+00	· 0E+00	0E+00	0E+00	0E+00	. NA	9E-09	0E+00	0E+00	5E-07	K.	N.	1E-04	2E-05	2E-05	. NA	N.	00+30	2E-05	00+30	(FROM WS2)	DERMAL	SURFACE WAT SEDIMENT	HOLMES RUN	SCENARIO 2	SUBCHRON
0E+00 7E-08	72-08	00+30	02+00	52-09	5E-08	02+00	4E-08	1E-07	3E-08	02+00	2E-08	3E-08	3E-08	7E-10	4E-09	YH	00+30	02+00	00+30	0E+00	02+00	02+00	02+00	02+00	0E+00	AN	8E-09	02+00	00+30	1E-06	AN.	XX.	02+00	22-06	4E-06	. AN	YN	2E-06	3E-06	0E+00	(FROM WS3)	ORAL	SEDIMENT	HOLMES RUN	SCENARIO 3	SUBCHRONIC HAZARD QUOTIENT
¥	NA.	X.	YN	AN	AN	AN	XN.	A.N.	X K	KN	KN	X N	AN.	AN	XN.	KN.	KN	Y.	YK	KK.	KN.	KN	KK	KN	KN.	KN	KN	KN	KK	XN.	K N	KN.	KK	KN.	AN.	KN	AN.	AN.	XX.	XN.	(FRON WS4)	DERMAL	SEDIMENT	HOLMES RUN	SCENARIO 4	JOTIENT
																																								0E+00	(FROM WS5)	0	0	0	SCENARIO 5	
)				•																																				0E+00	(FROM WS6)	0	0		SCENARIO 6	

SUBCHRONIC RISK SUMMARY

CURRENT WADER (HR)

SITE NAME: CAMERON STATION
OPERABLE UNIT: DISK 4
FILE NAME: POP2
LAST UPDATED: 06/05/92

		•	61 TRICHLOROFLUOR	60 2-(2,4,5-TRICH	59 2,4-DICHLOROPH	58 2,4,5-TRICHLOR	57 PCB 1260	56 METHOXYCHLOR	55 LINDANE / GAMA	54 BEPTACHLOR EPO	53 HEPTACHLOR	52 GAMMA-CHLORDAN	51 DIELDRIN	50 BETA-ENDOSULFA	49 BENZOIC ACID	48 BENZALDEHYDE	47 ALPHA CHLORDAN	46 ALDRIN	45 2,2-BIS (PARA-	44 2,2-BIS (PARA-	43 2,2-BIS (PARA-
			0.0E+00	0.05+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.05+00	0.02+00	0.0E+00	1.4E-10	0.05+00	0.0E+00	1.6E-07	0.0E+00	6.5E-11	0.0E+00	3.0E-10	2.7E-10	0.0E+00
			0.02+00	K N	0.05+00	AN	0.02+00	0.0E+00	0.02+00	0.02+00	0.0E+00	7.0E-09	0.05+00	0.02+00	5.8E-07	0.02+00	2.9E-07	0.02+00	3.6E-08	3.8E-08	0.0E+00
			0.02+00	0.02+00	0.02+00	0.05+00	0.05+00	0.0E+00	0.02+00	0.02+00	0.0E+00	0.0E+00	0.05+00	0.0E+00	2.1E-09	0.0E+00	0.05+00	0.0E+00	1.1E-08	1.1E-08	0.0E+00
			AN.	ΑN	N.	X.	0.0E+00	XX	X.	X.	N.	X.	X.	Y.	ΚN	AN.	ΑN	N.A	XN.	KN	NA.
POPULATION TOTAL	PATHWAY SUH (HI)																				
SE-03	3E-05	* 4	0E+00	0E+00	00+30	0E+00	X	0E+00	02+00	A.	0E+00	2E-06	0E+00	0E+00	4E-08	00+30	1E-06	0E+00	N.	AN	0E+00
	5E-03		0E+00	N A	0E+00	N.	, NA	02+00	0E+00	KN.	0E+00	1E-04	0E+00	0E+00	1E-07	0E+00	5E-03	00+30	AN	٨×	0E+00
	1E-05		02+00	02+00	02+00	0E+00	KN	02+00	0E+00	KN	02+00	0E+00	0E+00	00+30	5E-10	02+00	02+00	00+30	¥	KN KN	0E+00
	02+00		KN.	K N	AN	KN	X.	KN	ΚN	KN.	KN.	ΚN	X N	KN	X.	K.	KK	KK	K	KN	NA.
	0E+00																				
	02+00																				

And the second

CURRENT WADER (HR)

CHRONIC EXPOSURE SUMMARY

		CHRONIC DAIL	CHRONIC DAILY INTARE (mg/kg/day)	g/kg/day)				CHRONIC	CHRONIC HAZARD QUOTIENT	NT)		
	SCENARIO 1	HOLMES RUN	SCENARIO 3	SCENARIO 4	SCENARIO 5	SCENARIO 6	SCENARIO 1	SCENARIO 2	SCENARIO 3	SCENARIO 4	SCENARIO 5	SCENARIO 6
	н		SEDIMENT	SEDIMENT	0	0	SURFACE WAT	SURFACE WAT		SEDIMENT	0	0
	ORAL .	DERWAL	ORAL	DERMAL	0	0	ORAL	DERMAL		DERMAL	0	0
CHEMICAL NAME	(FROM WSI)	(FROM WS2)	(FROM WS3)	(FRON WS4)	(FROM WS5)	(FROM WS6)	(FROM WS1)	(FROM WS2)	4 WS3)	(FROM WS4)	(FROM WSS)	(FROM WS6)
1 ARSENIC	0.0E+00	0.0E+00	0.02+00	KN	0.02+00	0.0E+00	02+00	0E+00	02+00	KN.	0E+00	0E+00
2 BARIUM	2.5E-07	1.32-07	1.82-07	N.			4E-06	2E-05	3E-06	K.		
3 BERYLLIUM	0.0E+00	0.0E+00	1.1E-08	N.			00+30	0E+00	22-06	K N		
4 CADMIUM (FOOD)	0.02+00	0.0E+00	0.02+00	0.0E+00			0E+00	0E+00	02+00	0E+00		
5 CADHIUM (WATER	3.3E-08	1.6E-08	0.02+00	0.0E+00			3E-05	3E-04	02+00	0E+00		
6 CHROMIUM	4.8E-08	2.4E-08	7.0E-08	AN.			1E-05	1E-04	1E-05	KN		
7 MERCURY	2.4E-09	1.2E-09	5.72-10	KN			8E-06	2E-05	2E-06	KN.		
8 NICKEL	2.0E-07	1.0E-07	0.02+00	AN			1E-05	1E-04	02+00	KN		
9 NITRATE	1.4E-05	7.2E-06	0.02+00	N.			9E-06	AN	00+00	AN		
10 NITRITE	3.5E-08	1.8E-08	0.02+00	A.N.			4E-07	X.	0E+00	AN.		
11 SILVER	1.6E-09	8.0E-10	6.6E-09	K.			3E-07	5E-07	1E-06	XN		
12 THALLIUM	0.02+00	0.02+00	0.02+00	NA.			0E+00	0E+00	02+00	V.		
HUIDANAV E1	0.0E+00	0.02+00	0.02+00	XX			00+00	00+30	02+00	XN.		
14 ACETONE	3.2E-08	9.1E-09	7.82-09	K.			3E-07	9E-08	80-28	N.		
TO BENZENE		0.00+00	0.00	. ×			23 24	20 20 20 20 20 20 20 20 20 20 20 20 20 2	2 2	. 3		
17 ETHYLBENZENE	0.02+00	0.00+00	0.08+00	¥ 3			05+00	02+00	02+00	¥		
18 METRYLISOBUTYL	•	0.02+00	0.02+00	KN.			0E+00	0E+00	02+00	X.		
19 TOLUENE	0.02+00	0.0E+00	0.02+00	XN.			0E+00	00+30	00+30	KK		
20 XYLENES, TOTAL	0.02+00	0.02+00	0.02+00	, NA	٠		00+30	0E+00	02+00	AN		
21 1,2-DIMETRYLBE	0.0E+00	0.02+00	0.02+00	YN .			00+30	00+00	0E+00	KN KN		
22 1,3-DIMETHYLBE		0.02+00	0.02+00	XN.			0E+00	02+00	00+30	XN.		
23 2,4-DIMETRYLPH	0.0E+00	0.02+00	0.02+00	X.			00+30	.0E+00	00+30	X.		
24 2-METHYLNAPHTH		0.05+00	0.08+00	. ×			00+00	N.	00+30	E NA		
A CONTRACTOR			3 18 700	= 3			000	00+30		: 3		
27 ANTHRACENE	0.08+00	0.08+00	2.15-09	× ×			08+00	× 3	78-09	× 3		
28 BENZO (a) ANTH	0.02+00	0.0E+00	9.15-09	NA.			06+00	AN	3E-07	KN.		
29 BENZO [a] PYRE		0.08+00	7.82-09	NA.			0E+00	NA.	3E-07	XN.		
30 BENZO [b] FLUO	0.05+00	0.02+00	7.32-09	AN			0E+00	N.	2E-07	N.		
31 BENZO [g,h,i]	0.02+00	0.0E+00	0.02+00	KN.			06+00	A.N.	00+00	AN		
32 BENZO [k] FLUO	0.02+00	0.02+00	7.82-09	KN			0E+00	AN.	3E-07	X.	•	
33 BIS (2-ETHYLHE	0.02+00	0.02+00	2.1E-09	X.			00+30	0E+00	1E-07	X.		
34 CHRYSENE		0.08+00	1.1E-08	XN			00+00	X.	4E-07	XX		
35 DIBENZ (a,h) A	·	0.02+00	0.02+00	K N			02+00	N.	00+30	XN.		
36 FLUORANTHENE	0.02+00	0.02+00	2.12-08	NA.			0E+00	X.	52-07	Y.		
37 FLUORENB	0.0E+00	0.02+00	2.1E-09	KN			00+30	XN.	52-08	XX.		
38 INDENO [1,2,3-		0.08+00	0.02+00	N.			02+00	N.A.	02+00	KN.		
39 NAPHTHALENS	0.05+00	0.02+00	0.02+00	KN			00+30	XN.	02+00	XN		
40 PHENANTHRENE	0.05+00	0.02+00	2.1E-08	X.			00+30	*	7E-07	XX		
11 PHENOL	0.02+00	0.02+00	0.02+00	X.			02+00	02+00	00+20	×		
42 PYRENE	0.02+00	0.02+00	2.08-08	KN)	0E+00	X.	72-07	A.		

CHRONIC RISK SUMMARY

CURRENT WADER (HR)

SITE NAME: CAMERON STATION OPERABLE UNIT: DISK 4 FILE NAME: POP2 LAST UPDATED: 06/05/92

		1 TRICHLOROFLUOR	0 2-(2,4,5-TRICH	9 2,4-DICHLOROPH	8 2,4,5-TRICHLOR	7 PCB 1260	5 HETHOXYCHLOR	5 LINDANE / GAMA	HEPTACHLOR EPO	HEPTACHLOR	GAMMA-CHLORDAN	DIELDRIN	BETA-ENDOSULFA	9 BENZOIC ACID	BENZALDEHYDE	7 ALPHA CHLORDAN	6 ALDRIN	5 2,2-BIS (PARA-	(2,2-BIS (PARA-	3 2,2-BIS (PARA-
		0.02+00	0.02+00	0.0E+00	0.0E+00	0.05+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.4E-10	0.0E+00	0.0E+00	1.6E-07	0.0E+00	6.5E-11	0.0E+00	3.0E-10	2.7E-10	0.0E+00
		0.02+00	X.	0.0E+00	XN.	0.0E+00	0.0E+00	0.02+00	0.02+00	0.02+00	7.0E-09	0.0E+00	0.0E+00	5.8E-07	0.0E+00	2.9E-07	0.0E+00	3.6E-08	3.8E-08	0.02+00
		0.0E+00	0.02+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.1E-09	0.05+00	0.02+00	0.0E+00	1.1E-08	1.1E-08	0.0E+00
		X.	K N	K N	NA.	0.0E+00	K N	AN	N.	٨N	AN	AN	X N	X.	A.	X.	X.	K N	X.	N.
POPULATION TOTAL	PATHWAY SUH (HI)																			
6E-03	8E-05	0E+00	00+00	0E+00	00+30	X N	02+00	0E+00	0E+00	0E+00	2E-06	0E+00	00+00	4E-08	00+30	1E-06	00+30	X.	N.A	0E+00
	6E-03	0E+00	ΑN	02+00	Z,	X	0E+00	00+30	0E+00	0E+00	1E-04	0E+00	0E+00	1E-07	00+30	5E-03	0E+00	NA.	NA.	0E+00
	2E-05	00+30	02+00	00+30	0E+00	X N	00+00	0E+00	02+00	02+00	00+30	0E+00	0E+00	5E-10	02+00	00+30	0E+00	X.	N.	0E+00
	02+00	X	. AX	AN.	K N	A.	K N	N.	XX	AN.	N.	N A	N.	X.	X.	XX	XX	XN.	N.	N.
	0E+00																			

0E+00

LIPETIME RISK SUMMARY

CURRENT WADER (HR)

SITE NAME: CAMERON STATION
OPERABLE UNIT: DISK 4
FILE NAME: POP2
LAST UPDATED: 06/05/92

CURRENT HADER (HR)

LIFETIME EXPOSURE SUMMARY

	i				š)		3	1. 16-03	0.08400	0.08+00	42 PYRENE
l		ž	*	W.	E)					0 0 0	41 FRENCE
	_	3	X		×			_	0.02+00	0 05+00	0 05100	
	~	K.	AN	AN	K X			۲×	1.8E-09	0.02+00	0.02+00	
		XX	XX	A.N.	KK KK			AN .	0.0E+00	0.02+00	0.02+00	
	~	3	00+30	XX	0E+00			, AN	0.02+00	0.02+00	. 0.0E+00	38 INDENO [1,2,3-
•	~ ~	2	N.		X.			KN	1.8E-10	0.0E+00	0.0E+00	37 FLUORENE
	•	2	· ·		NA.			YN.	1.82-09	0.0E+00	0.02+00	36 FLUORANTHENE
	•		00+30		00+30			XN.	0.02+00	0.0E+00	0.02+00	35 DIBENZ (a,h) A
	~ >		11-26		00+30			NA.	9.42-10	0.02+00	0.0E+00	34 CHRYSENS
	* *		38-12	02.	00+00			NA.	1.8E-10	0.0E+00	0.0E+00	33 BIS (2-ETHYLHE
	~ >		46-10		0E+00			X.	6.6E-10	0.02+00	0.0E+00	32 BENZO [k] FLUO
	~ >			•	NA.		•	Z.	0.02+00	0.0E+00	0.0E+00	31 BENZO [g,h,i]
	- >		4E-10		02+00			XN.	6.28-10	0.0E+00	0.0E+00	30 BENZO [b] FLUO
	~ ~		(E-09	X	02+00			AN.	6.6E-10	0.02+00	0.0E+00	29 BENZO (a) PYRE
	~		4E-10	AN	00+30		•	AN	7.7E-10	0.0E+00	0.0E+00	
	~	•	X	XN.	KN KN			XN.	1.8E-10	0.0E+00	0.05+00	27 ANTHRACENS
	~	2	X.X	AN.	K N			**	1.82-10	0.0E+00		26 ACENAPHTHENE
	*	2	X.N	KN KN	KN.			Z,	0.02+00	0.0E+00	0.05+00	25 2-METHYLPHENOL
	~		KN	XN.	. AN			K.	0.02+00	0.02+00	0.0E+00	24 2-HETHYLNAPHTH
	~	NA.	X.		XN.			N.A	0.02+00	0.02+00	0.0E+00	23 2,4-DIMETHYLPH
	*	**	X.		N.A.			K.	0.02+00	0.0E+00		22 1,3-DIMETHYLBE
	~	2	K.	AN	X N			K.	0.02+00	0.02+00	0.05+00	21 1,2-DIMETHYLBE
	~	**	N.N.	XN.	X.			K.	0.02+00	0.02+00	0.0E+00	20 XYLENES, TOTAL
		Z,	NA.	. AN	KN.			K.	0.05+00	0.02+00		19 TOLUENE
	•	2	KN.	K N	KN			K.	0.02+00	0.0E+00	-	18 HETHYLISOBUTYL
	*	2	. AN	AN AN	A.N.			K.N.	0.02+00	0.02+00	0.02+00	17 ETHYLBENZENE
		25	X.N	YN	A.N.			KN	0.0E+00	0.0E+00		16 CARBON DISULFI
	*	K.	0E+00	02+00	0E+00			KN	0.0E+00	0.0E+00	0.0E+00	15 BENZENE
	~	*	X.	NA.	A.N.			K.	. 6.6E-10	7.7E-10	2.8E-09	14 ACETONE
	*	×.	X.	XN.	X.			KN.	0.0E+00	0.0E+00	0.0E+00	13 VANADIUM
	•	K.	AN	KN NA	KN			AN.	0.0E+00	0.02+00	0.0E+00	12 THALLIUM
		K.	AN.	XN.	KN			KN	5.6E-10	6.8E-11	1.4E-10	11 SILVER
	,	**	N.	AN.	KN.			KN	0.0E+00	1.5E-09	3.0E-09	10 NITRITE .
	•	K	KN	NA.	, AN			N.	0.0E+00	6.1E-07	1.2E-06	9 NITRATE
	•	×	X.	AN	KN.			, AN	0.02+00	8.5E-09	1.7E-08	8 NICKEL
	-	X.	X.	KN	X.		•	Y.	4.8E-11	1.00E-10	2.0E-10	7 MERCURY
	-	XX.	X.	KN	KN.			KN.	6.0E-09	2.08-09	4.1E-09	6 CHROHIUM
	_	KN	YN	KN	AN.			0.0E+00	0.0E+00	1.4E-09	2.8E-09	5 CADHIUM (WATER
	_	*	K.		KN.			0.02+00	0.02+00	0.0E+00	0.0E+00	4 CADHIUM (FOOD)
	_	XX	4E-09	00+00	0E+00			A.N	9.6E-10	0.0E+00	0.0E+00	3 BERYLLIUM
	_	X.X	AN.	N.	A.N.			, NA	1.5E-08	1.1E-08	2.2E-08	2 BARIUM
+00 0E+00	N 0E+00	*	0E+00	0E+00	0E+00	0.0E+00	0.02+00	A.N.	0.0E+00	0.02+00	0.0E+00	1 ARSENIC
55) (FROM WS6)	(FROM WS5)	(FROM WS4)	(FROM WS3)	(FROM WS2)	(FROM WS1)	(FROM WS6)	(FROM WS5)	(FROM WS4)	(FROM WS3)	(FROM WS2)	(FROH WS1)	CHEMICAL NAME
0		DERMAL	ORAL	DERMAL	ORAL	0		DERMAL	ORAL		ORAL	
0		SEDIMENT	SEDIMENT	SURFACE WAT	SURFACE WAT	0	0	SEDIMENT	SEDIMENT		SURFACE WAT	
0	_	HOLMES RUN	HOLMES RUN	HOLMES RUN	HOLMES RUN	•	0	HOLMES RUN	HOLMES RUN	HOLMES RUN	HOLMES RUN	
5 SCENARIO 6	SCENARIO 5	SCENARIO 4	SCENARIO 3	SCENARIO 2	SCENARIO 1	SCENARIO 6	SCENARIO 5	SCENARIO 4	SCENARIO 3	SCENARIO 2	SCENARIO 1	
		ANCER RISK	LIFETIME EXCESS CANCER RISK	LIFET			kq/day)	INTAKE (mg/	LIFETIME AVERAGE DAILY INTAKE (mg/kg/day)	LIFETIME AV		

0E+0	02+00	1E-08	3E-08	4E-11	TOTAL PATHWAY CANCER RISK					
	ş	ž	X	ž		NA NA	0.02+00	0.0E+00	0.02+00	TRICHLOROFLUOR
	×	×	N.	X.		AN AN	0.05+00	X.	0.02+00	2-(2,4,5-TRICH
	KN	X.	N.	N.		N.	0.0E+00	0.0E+00	0.0E+00	2,4-DICHLOROPH
	X.	KN	. NA	A.N		X.	0.0E+00	AN.	0.0E+00	2,4,5-TRICHLOR
	00+30	00+30	0E+00	0E+00		0.0E+00	0.0E+00	0.0E+00	0.0E+00	PCB 1260
	¥	K N	. AN	N.	•	K N	0.02+00	0.02+00	0.02+00	METHOXYCHLOR
	X.	00+30	0E+00	0E+00		NA.	0.0E+00	0.0E+00	0.0E+00	LINDANE / GAMA
	X.	00+30	0E+00	00+30		XX	0.0E+00	0.0E+00	0.02+00	HEPTACHLOR EPO
	¥	00+30	0E+00	00+30		N.	0.02+00	0.0E+00	0.02+00	HEPTACHLOR
	KN	00+30	8E-10	2E-11		N.	0.0E+00	5.9E-10	1.2E-11	Gamma-Chlordan
	KN.	0E+00	05+00	0E+00		. AN	0.0E+00	0.0E+00	0.0E+00	DIELDRIN
	¥	A.	K.	A.N.		N.	0.0E+00 ·	0.02+00	0.02+00	Beta-endosulfa
	KN	KN	N.	N.		N.	1.8E-10	4.9E-08	1.4E-08	BENZOIC ACID
	¥	K.	N.	٨x		N.	0.0E+00	0.02+00	0.0E+00	Benzaldehyde
	¥	00+30	3E-08	7E-12		AN	0.0E+00	2.4E-08	5.6E-12	ALPHA CHLORDAN
	X	00+30	0E+00	0E+00		KN	0.0E+00	0.02+00	0.0E+00	ALDRIN
	¥	2E-10	7E-10	6E-12		N.	9.4E-10	3.1E-09	2.6E-11	2,2-BIS (PARA-
	¥	3E-10	1E-09	8E-12		A.N	9.4E-10	3.2E-09	2.3E-11	2,2-BIS (PARA-
	X.	0E+00	0E+00	0E+00		NA	0.0E+00	0.0E+00	0.0E+00	2,2-BIS (PARA-

E+00

POPULATION TOTAL EXCESS RISK

4E-08

SUBCHRONIC EXPOSURE SUMMARY

CURRENT WADER (CR)

))						
		*	08+00	*	00+30	•		*	0.02+00	0.02+00	0.02+00	DYRENE
		¥	02+00	0E+00	00+30			XX.	0.02+00	0.05+00	0.02+00	PHENOL
		¥	02+00	¥	02+00			X.	0.05+00	0.02+00	0.05+00	PHENANTHRENS
			02+00	¥	02+00			K.	0.02+00	0.02+00	0.05+00	NAPHTHALBNE
		XX.	02+00	KN.	02+00			AN	0.02+00	0.05+00	0.02+00	INDENO [1,2,3-
		XX.	02+00	N.	0E+00			AN.	0.02+00	0.02+00	0.05+00	FLUORENE
		X.	08+00	X.	05+00			YN	0.02+00	0.0E+00	0.0E+00	FLUORANTHENE
		X.	02+00	NA.	02+00			KN	0.02+00	0.0E+00	0.05+00	DIBENZ [a,h] A
		KN	02+00	X.	02+00			WN	0.02+00	0.05+00	0.02+00	CHRYSENE
		KK	1E-07	02+00	00+30			XN.	2.1E-09	0.02+00		BIS (2-ETHYLHE
		K.	02+00	X.	0E+00			K N	0.02+00	0.0E+00	0.02+00	BENZO [k] FLUO
		KK	02+00	X.	00+00			N.	0.02+00	0.0E+00	0.02+00	BENZO [g,h,i]
		XX	02+00	K.	02+00			AN.	0.02+00	0.02+00	0.02+00	BENZO [b] FLUO
		KN.	08+00	KN.	02+00			AN	0.02+00	0.02+00	0.05+00	BENZO (a) PYRE
		A.N.	02+00	A.N	02+00			K N	0.05+00	0.0E+00	0.02+00	BENZO (a) ANTH
		KN	02+00	X.	0E+00			XN.	0.02+00	0.02+00	0.02+00	ANTHRACENE
		K.	02+00	AN	0E+00			KN	0.02+00	0.0E+00	0.0E+00	ACENAPETHENE
		. NA	AN	A.	A.N.			K N	0.02+00	0.02+00	. 0.02+00	2-METHYLPHENOL
		KN	0E+00	A.	0E+00			A.N	0.0E+00	0.0E+00	0.02+00	2-METHYLNAPHTH
		KK.	02+00	0E+00	0E+00			XN.	0.02+00	0.02+00	0.02+00	2,4-DIMETHYLPH
		KN	02+00	0E+00	0E+00			AN	0.0E+00	0.0E+00	: 0.0E+00	1,3-DIMETHYLBE
		KX	02+00	0E+00	0E+00			K K	0.02+00	0.05+00	0.0E+00	1,2-DIMETRYLBE
		K.	00+30	0E+00	02+00			AN	0.02+00	0.0E+00	0.02+00) XYLENES, TOTAL
		KN	02+00	02+00	02+00			KN.	0.02+00	0.0E+00	0.02+00	TOLUENE
		KK	00+00	0E+00	0E+00			KN	0.02+00	0.05+00	0.02+00	METHYLISOBUTYL
		KN.	02+00	0E+00	0E+00			K N	0.02+00	0.0E+00	0.0E+00	ETHYLBENZENE
		XX	02+00	0E+00	0E+00			KN	0.02+00	0.0E+00	0.02+00	CARBON DISULFI
		KN	A.N	AN	AN.			KN	0.02+00	0.02+00	0.02+00	BENTENE
		KN.	32-08	9E-09	3E-08			K N	2.52-08	9.1E-09	3.2E-08	ACETONE
		K	00+30	0E+00	0E+00			KN	0.02+00	0.0E+00	0.02+00	NUIDANAV (
		AN.	02+00	0E+00	0E+00			X.	0.05+00	0.02+00	0.02+00	HULLIVEL
		KN	12-06	1E-06	9E-07			N.A.	6.6E-09	2.2E-09	4.4E-09	SILVER
		XX.	K.	X.	KN.			KN.	0.0E+00	4.5E-07	9.0E-07	NITRITE
		K.	K N	Z.	X.			K.	0.02+00	3.2E-06	6.4E-06	NITRATE
		× :	00+20	1E-04	1E-05			KN.	0.02+00	1.0E-07	2.02-07	NICKEL
		¥ :	2E-06	22-05	8E-06			Z.	5.7E-10	1.2E-09	2.4E-09	MERCURY
		N.	32-06	2E-05	2E-06			22	7.0E-08	2.4E-08		CHROMIUM
		2	KK.	¥ .	**			0.05+00	0.02+00	8.0E-09	1.6E-08	CADMIUM (WATER
		Z	XX.	×.	*			0.0E+00	0.02+00	0.0E+00	0.02+00	CADMIUM (FOOD)
		*	3E-07	02+00	0E+00			AN	1.6E-09	0.0E+00	0.02+00	BERYLLIUM
		XX.	22-06	2E-05	5E-06			KN	1.1E-07	1.7E-07	3.5E-07	BARIUM
0E+00	02+00	¥	02+00	0E+00	0E+00	0.0E+00	0.05+00	KN	0.0E+00	0.0E+00	0.0E+00	ARSENIC
(FROM WS6)	(FROM WS5)	(FROH WS4)	(FROM WS3)	(FROM WS2)	(FROM WS1)	(PROM WS6)	(FROM WS5)	(FROM WS4)	(FROH WS3)	(FROM WS2)	(FROM WS1)	CHEMICAL NAME
0	0	DERMAL	ORAL	DERMAL		0	0	DERMAL	ORAL	DERMAL	ORAL	
0	0	SEDIMENT	SEDIMENT	WAT SURFACE WAT SEDIMENT	SURFACE WA	0	0	SEDIMENT	C SEDIMENT	SURFACE WAT SURFACE WAT SEDIMENT	SURFACE WAY	
	0	CAMERON RUN	CAMERON RUN	RUN CAMERON RUN CAMERON RUN	CAMERON RUI	0	0		CAMERON RUN CAMERON RUN	N CAMERON RUI	CAMERON RUN	
SCENARIO 6	SCENARIO 5	SCENARIO 4	SCENARIO 3	SCENARIO 2	SCENARIO 1	SCENARIO 6	SCENARIO 5	SCENARIO 4	SCENARIO 3	SCENARIO 2	SCENARIO 1	
		OTIENT	SUBCHRONIC HAZARD QUOTIENT	SUBCHRON			_	(mg/kg/day)	SUBCHRONIC DAILY INTAKE	SUBCHRONIC		

SUBCHRONIC RISK SUMMARY

CURRENT WADER (CR)

 $e_{x}^{(i)}$

SITE NAME: CAMERON STATION
OPERABLE UNIT: DISK 4
FILE NAME: POP3
LAST UPDATED: 06/05/92

		61 TRICHLOROFLUOR	60 2-(2,4,5-TRICH	59 2,4-DICHLOROPH	58 2,4,5-TRICHLOR	57 PCB 1260	56 METHOXYCHLOR	55 LINDANE / GAMA	54 HEPTACHLOR EPO	53 HEPTACHLOR	52 GAMMA-CHLORDAN	51 DIELDRIN	50 BETA-ENDOSULFA	(9 BENZOIC ACID	(8 BENZALDEHYDE	47 ALPHA CHLORDAN	(6 ALDRIN	45 2,2-BIS (PARA-	14 2,2-BIS (PARA-	(3 2,2-BIS (PARA-	
		0.02+00	0.0E+00	0.0E+00	0.0E+00	0.02+00	0.0E+00	0.02+00	0.0E+00	0.02+00	1.4E-10	0.02+00	0.0E+00	1.6E-07	0.0E+00	6.5E-11	0.0E+00	3.0E-10	2.7E-10	0.02+00	
		0.0E+00	A.N	0.05+00	¥	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.02+00	7.02-09	0.0E+00	0.0E+00	5.8E-07	0.0E+00	2.9E-07	0.0E+00	3.62-08	3.8E-08	0.08+00	
		0.08+00	0.0E+00	0.02+00	0.02+00	0.02+00	0.02+00	0.0E+00	0.05+00	0.02+00	0.0E+00	0.02+00	0.02+00	2.1E-09	0.02+00	0.02+00	0.02+00	1.1E-08	1.15-08	0.0E+00	
		×	A.N.	A.N.	K N	0.02+00	AN	K N	K N	ΛN	K N	A.	AN	N.		A N	X N	A N	N	A.N.	
POPULATION TOTAL	PATHWAY SUH (HI)																			•	
5E-03	\$E~05	06+00	00+30	00+30	0E+00	A.N	02+00	00+30	KN.	00+30	2E-06	0E+00	00+30	4E-08	00+30	1E-06	0E+00	N.	AN.	0E+00	
	52-03	00+30	N.	00+30	AN.	AN.	0E+00	0E+00	X.	08+00	1E-04	0E+00	05+00	1E-07	0E+00	5E-03	0E+00	X.	AN.	0E+00	
	8E-06	02+00	00+30	02+00	0E+00	K.	02+00	05+00	NA.	0E+00	0E+00	0E+00	0E+00	5E-10	02+00	02+00	00+30	X	KK	02+00	
	02+00	.	XX	KN	X.	N.	A.	NA.	N.	X.	X	X.	AN	AN.	KN KN	X.	AN	X N	A.	NA	
	0E+00																				
	0E+00																				

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CHRONIC EXPOSURE SUMMARY

WADER (CR)

20 XYLENES, TOTAL ACETONE BENZO (a) ANTH BENZO (a) PYRE BENZO (b) FLUO SILVER NICKEL NITRATE CARBON DISULFI TOLUENE TALIBOSITABLEM TALEM **ETHYLBENZENE** NITRITE CHROMIUM CADMIUM CADMIUM (FOOD) CHRYSENB 1,3-DIMETHYLBE THALLIUM BERYLLIUM CHEMICAL NAME PHENOL PHENANTERENS NAPHTHALENE PLUORANTHENB DIBENT (a,h) A BIS (2-ETHYLHE BENZO [k] FLUO BENZO [g,h,1] ANTERACENE ACENAPHTHENE 2-METHYLPHENOL 2-METHYLNAPHTH 2,4-DIMETHYLPH 1,2-DIMETRYLBE BENZENB MERCURY BARIUM ARSENIC INDENO [1,2,3-PLUORENE (WATER (FROM WS1) SURPACE WAT SURPACE WAT SEDIMENT CAMERON RUN SCENARIO 1 3.5E-07 0.0E+00 0.02+00 6.4E-06 9.0E-07 0.0E+00 0.0E+00 0.0E+00 0.02+00 0.0E+00 1.6E-08 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.02+00 0.0E+00 0.02+00 0.02+00 0.02+00 0.0E+00 0.0E+00 3.2E-08 0.02+00 0.0E+00 4.4E-09 4.8E-08 0.02+00 0.0E+00 0.0E+00 0.0E+00 0.02+00 0.08+00 0.02+00 0.0E+00 0.02+00 .0E-07 .4E-09 CHRONIC DAILY INTAKE (mg/kg/day)
SCENARIO 2 SCENARIO 3 SCENARIO (FROM WS2) CAMERON RUN CAMERON RUN CAMERON RUN DERHAL 0.0E+00 0.0E+00 3.2E-06 4.5E-07 0.05+00 0.0E+00 0.0E+00 0.05+00 0.02+00 0.02+00 0.02+00 0.0E+00 0.0E+00 8.0E-09 0.02+00 0.02+00 0.0E+00 0.02+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 9.1E-09 2.22-09 2.4E-08 1.7E-07 0.0E+00 1.0E-07 1.2E-09 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.02+00 0.0E+00 ORAL (FROM WS3) 0.02+00 0.02+00 0.0E+00 0.02+00 0.0E+00 2.1E-09 0.0E+00 0.02+00 0.02+00 0.0E+00 5.7E-10 0.02+00 0.02+00 0.05+00 0.05+00 0.0E+00 0.0E+00 2.55-08 0.02+00 0.0E+00 7.0E-0 1.6E-05 1.1E-07 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.02+00 0.0E+00 0.02+00 0.02+00 0.0E+00 0.02+00 (FROM WS4) DERMAL SEDIMENT 0.0E+00 * * * * * * (FROM WS5) SCENARIO 5 0.02+00 (FROM WS6) SCENARIO 0.0E+00 (FROM WS1) SURFACE WAT SURFACE WAT SEDIMENT CAMERON RUN CAMERON RUN CAMERON RUN SCENARIO 1 SCENARIO 2 0E+00 0E+00 1E-05 8E-06 2E-05 0E+00 0E+00 0E+00 05+00 0E+00 0E+00 05+00 00+30 0E+00 00+30 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 3E-07 0E+00 0E+00 9E-07 9E-06 4E-06 1E-05 0E+00 02+00 0E+00 (FROM WS2) DERMAL CHRONIC HAZARD QUOTIENT 1E-04 0E+00 2E-05 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 9E-08 1E-04 2E-05 1E-04 02+00 0E+00 0E+00 0E+00 0E+00 1E-06 0E+00 Z (FROM WS3) OR L SCENARIO 3 SCENARIO 4 0E+00 2E-06 02+00 0E+00 02+00 0E+00 0E+00 2E-06 0E+00 05+00 00+30 3E-07 02+00 00+00 00+30 02+00 02+00 02+00 3E-07 0E+00 1E-05 00+30 02+00 02+00 06+00 02+00 02+00 02+00 (FROM WS4) DERMAL SEDIMENT 0E+00 SCENARIO 5 (FROH WS5) 0E+00 (FROM WS6) SCENARIO 0E+00

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PYRENE

CHRONIC RISK SUMMARY

WADER (CR)

LAST UPDATED: 06/05/92

OPERABLE UNIT: DISK 4
FILE NAME: POP3

SITE NAME: CAMERON STATION

		0.0E+00		1 0.02+00								0.0E+00					0.02+00	3.0E-10	2.7E-10	2,2-BIS (PARA- 0.0E+00	
		0.0E+00	X	0.0E+00	KN	0.0E+00	0.0E+00	0.0E+00	0.02+00	0.0E+00	7.0E-09	0.0E+00	0.0E+00	5.8E-07	0.05+00	2.9E-07	0.0E+00	3.6E-08	3.8E-08	0.0E+00	
		0.02+00	0.02+00	0.0E+00	0.02+00	0.0E+00	0.02+00	0.0E+00	0.02+00	0.02+00	0.0E+00	0.0E+00	0.02+00	2.1E-09	0.02+00	0.02+00	0.0E+00	1.1E-08	1.1E-08	0.0E+00	
		NA NA	N.	A.	K N	0.0E+00	A.	NA.	N.	KN	AN	ĸx	KN KN	K.	AN.	N.	N.	A.	ΛN	NA	
POPULATION TOTAL	PATHWAY SUM (HI)							٠													
5E-03	72-05	02+00	0E+00	0E+00	0E+00	N.A	0E+00	0E+00	02+00	00+30	2E-06	05+00	00+30	4E-08	00+30	1E-06	00+30	K.	X.	0E+00	
	58-03	02+00	A.	0E+00	. NA	AN	00+30	02+00	02+00	02+00	1E-04	0E+00	0E+00	1E-07	0E+00	5E-03	0E+00	KN	AN	0E+00	
	2E-05	02+00	0E+00	02+00	00+30	KN	0E+00	02+00	00+30	02+00	00+30	0E+00	0E+00	52-10	00+30	00+30	0E+00	¥	N.	0E+00	
	02+00	X	X.	K.	K	A.K	X	X	Z.	¥.	Z.	¥	¥	N.	X.	£	K.	X.	X.	N.	
	02+00																				
	_																				

02+00

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Sugar May

LIFETIME EXPOSURE SUMMARY

CURRENT WADER (CR)

	3	3	A.N.	XX.)		E	_		0.02+00	13 SABANA
			: 5	2			2	0.02+00	0.02+00	0.08+00	
	¥ ;	× ;	# #	E 3				0.02+00	0.02+00	0.02+00	0 PHENANTHRENS
	¥	2	×	W .						0.02+00	39 KAPHTHALENE
	¥		¥	*							38 INDENO [1,2,3-
	*	00+30	¥	0E+00					0.00		
	XX.	XX	XX.	XX.					0.08400	0 00.00	DO STOOMANTERNO
	3	3	A.K	KX			X	0.02+00	0.02+00	0.08+00	THE PROPERTY OF THE PARTY OF TH
	: 3	02+00	2	0E+00			Y.	0.02+00	0.02+00	0.05+00	
	E :	2 1 1 1 2 2		05+00			. AN	0.02+00	0.02+00		
	¥ ;	9 1	20.00	01100			XX	1.85-10	0.02+00	0.0E+00	
	*	38-12	04.00	9				0.02+00	0.02+00	0.05+00	32 BENZO [k] FLUO
		02+00	¥ ;	00.400	٠	•	2	0.02+00	0.02+00	0.02+00	31 BENZO [g,h,i]
	*	X.	XX	K.		•	: 3	0.05+00	0.08+00		onta [q] ornag of
	K.	02+00	×	02+00		•			0.00		29 BENZO [a] PIKE
	¥	02+00	KN	05+00		•	¥ :	0.02400	0.00		28 BENZO (a) ANTO
	*	02+00	XN.	0E+00		-	*	0.02+00	0.02+00		
	3	20	NA	NA.			KX	0.02+00	0.02+00	0.08+00	
	.	: 3	24	NA.			KN.	0.02+00	0.05+00		
	2						NA.	0.02+00	0.02+00	0.02+00	
	¥	XX :	¥ ;				2	0.02+00	0.05+00	0.02+00	24 2-METHYLNAPHTH
	*	X.	X	×.			: 3	0.05+00	0.02+00		23 2,4-DIMETHYLPH
	¥	KK	X.	××			¥ ;		0.00100	-	22 1,3-DIMETHILDE
	¥	XX.	XX	XX.		•	Z,	0.04400	0 0 0 0 0 0		
•	\$	XX	XX.	X.			K.	0.02+00	0.08+00		
	2	× ×	NA.	X.			XN.	0.02+00	0.02+00	•	
	= 3			XX.				0.0E+00	0.05+00		TOLUENE
		. 3	: 3	2			XN.	0.02+00	0.02+00	_	ARTHYLISOBUTYL
	£ :	¥ 4					KN	0.02+00	0.02+00		7 ETHYLBENZENS
		<u>.</u>	; ;	: 3			XX.	0.05+00	0.05+00		
	£ ;		02100	00+30			KN	0.02+00	0.02+00	0.02+00	15 BENZENE
		25.00					XX	2.15-09	7.78-10	2.82-09	4 ACETONE
	2 i	.	E 15	E 3			×	0.02+00	0.02+00	0.05+00	HUIDANAV E
	ž	× .	¥ ;	יני ויני				0.02+00	0.02+00	0.02+00	2 TEALLIUM
	¥	X	N :	¥ :				5.62-10	1.98-10	3.88-10	1 SILVER
	¥	*	Z .					0.02+00	3.82-08	7.82-08	O NITRITE
	¥ (2	¥ ;	¥ 3				0.02+00	2.72-07	5.5E-07	· NITRATE
	\$	N.	¥.					0.02+00	8.55-09	1.7E-08	NICKEL
	K.	NA :	ž i	¥ ;			: 3	4.85-11	1.002-10	2.02-10	MERCURY
	*	¥ ;	N i					5.95-09	2.02-09	4.1E-09	CHROMIUM
	E	× :	¥ i	£ 5			0.02+00	0.05+00	6.8E-10	1.4E-09	CADMIUM (WATER
	₹ ;	X.	¥ 3	2 3			0.02+00	0.02+00	0.02+00	0.02+00	CADMIUM (FOOD)
	E :	TR.	2000	00+30			NA.	1.4E-10	0.02+00	0.02+00	BERYLLIUM
	E	6E-10	05+00				×	9.3E-09	1.58-08	3.0E-08	BARIUM
	¥	22	20.00	00700	0.05+00	0.05+00	X.	0.02+00	0.0E+00	0.02+00	ARSENIC
_	(400 too)	(cen 40%)	(* CH CON 1)	(15k HON4)	(FROM WS6)	(FROM WS5)	(FROM WS4)	(FROM WS3)	(FROM WS2)	(FROM WS1)	CHEMICAL NAME
PROM WSS1 (FROM WS6)		CONT.	DERMAL UCA	TVNO	0		DERHAL	ORAL	DERMAL	ORAL	
5 6	DEDITION.	SEPTMENT	WAT SURPACE MAI SECTMENT	CE			SEDIMENT	SEDIMENT	SURFACE WAT SEDIMENT	SURFACE WAT	
> (CARLACH AND CARLACH AND	CARLACK NON	KON CAMERON KON				CAMERON RUN	CAMERON RUN	CAMERON RUN CAMERON RUN	CAMERON RUN	
		STANDON DIN	STERMAN A		SCENARIO 6	SCENARIO 5	SCENARIO 4	SCENARIO 3	SCENARIO 2	SCENARIO 1	
CONTRACTO SCENARIO O											

LIFETIME RISK SUMMARY

CURRENT WADER (CR)

SITE NAME: CAMERON STATION
OPERABLE UNIT: DISK 4
FILE NAME: POP3
LAST UPDATED: 06/05/92

		· 61 TRICHLOROFLUOR	60 2-(2,4,5-TRICH	59 2,4-DICHLOROPH	58 2,4,5-TRICHLOR	57 PCB 1260	56 METHOXYCHLOR	55 LINDANE / GAMA	54 HEPTACHLOR EPO	53 HEPTACHLOR	52 GAMMA-CHLORDAN	51 DIELDRIN	50 BETA-ENDOSULFA	49 BENZOIC ACID	48 BENZALDEHYDE	47 ALPHA CHLORDAN	46 ALDRIN	45 2,2-BIS (PARA-	44 2,2-BIS (PARA-	43 2,2-BIS (PARA-
		0.0E+00	0.02+00	0.0E+00	0.05+00	0.0E+00	0.02+00	0.0E+00	0.0E+00	0.0E+00	1.2E-11	0.0E+00	0.0E+00	1.4E-08	0.0E+00	5.6E-12	0.05+00	2.6E-11	2.3E-11	0.0E+00
	•	0.02+00	XN.	0.02+00	KN KN	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	5.9E-10	0.0E+00	0.02+00	4.9E-08	0.02+00	2.4E-08	0.02+00	3.1E-09	3.2E-09	0.02+00
		0.0E+00	0.02+00	0.02+00	0.05+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.0E+00	0.02+00	1.8E-10	0.02+00	0.02+00	0.02+00	9.4E-10	9.4E-10	0.02+00
		KN.	N.	X.	KN	0.02+00	KN	KN	K N	KK	KN.	KN	AN	AN	KN.	K N	X.	KN	XN.	KN.
POPULATION TOTAL EXCESS RISK	TOTAL PATHWAY CANCER RISK			?																
3E-08	4E-11	×	NA.	¥	×	02+00	XX.	02+00	02+00	02+00	2E-11	02+00	XX	AN	×	72-12	02+00	6E-12	8E-12	00+30
	3E-08	× ×	N.A.	×.		00+30	N.	02+00	00+30	00+30	8E-10	00+30	X.	K	NA.	3E-08	00+30	7E-10	1E-09	0E+00
	1E-09	3	, A	3	NA.	00+30	2	00+30	00+30	00+30	02+00	05+00	N.A.	×	NA	08+00	00+30	ZE-10	3E-10	06+00
	02+00	3	3	3	. X	00+30	3	3	ξ.	3	*	¥	×	Ş	ž	3	ž	3	7	N
	02+00																			

0E+00

SUBCHRONIC EXPOSURE SUMMARY

FUTURE RES-CHILD (CL)

: :		, <u>u</u>	, L			3	<u>ي</u>	ŭ	33	32	31	30	29	28	23	26	25	2	23	22	22	20	 	=	=======================================	1	15	=	=	=	=	<u>.</u>	9	.	-	Φ.	.	_	w		_						
PERENE									BIS (BENIO	BENZO	Benzo	BENSO (a) PYRE	BENZO (a) ANTH	ANTERACENE	ACENAPHTHENE	2-METHYLPHENOL	2-METHYLNAPHTH	2,4-DIMETHYLPH	1, 3-DIMETHYLBE	1,2-DIMETHYLBE	XYLENES, TOTAL	TOLUENE	HETHYLISOBUTYL	ETHYLBENZENE	CARBON DISULFI	-	ACETONE	HUIDANAV	THALLIUM	SILVER	NITRITE	NITRATE	NICKEL	MERCURY	CEROMIUM	CADMIUM (WATER	CADMIUM (FOOD)	BERYLLIUM	BARIUH	ARSENIC	CHEMICAL NAME				1	i
1.52-11	1111111	1.38-11	3.06-14	*****	3 3 9 1 3	1.3E-11	0.02+00	7.5E-12	2.3E-12	6.0E-12	2.9E-12	6.0E-12	6.0E-12	1.5E-11	2.3E-12	2.3E-12	0.02+00	2.3E-12	0.0E+00	0.0E+00	0.05+00	4.2E-12	4.2E-12	4.2E-12	4.2E-12	0.0E+00	4.2E-12	4.2E-12	1.1E-10	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.6E-11	0.05+00	1.1E-10	0.0E+00	0.02+00	9.3E-12	5.8E-10	0.0E+00	(FROM WS1)	INHALATION	AIR-PART	CAH-LAKE	SCENARIO 1	
0.02+00	0.08100	1.181.1	1 15-21	0.00.00	0.04.00	0.02+00	0.02+00	0.0E+00	0.02+00	0.0E+00	0.02+00	0.02+00	0.02+00	0.02+00	0.0E+00	0.0E+00	0.02+00	0.02+00	0.02+00	0.02+00	0.05+00	4.2E-19	1.2E-19	1.2E-20	2.9E-20	0.02+00	6.3E-19	9.0E-17	0.02+00	0.02+00	0.02+00	0.0E+00	0.05+00	0.02+00	0.02+00	0.08+00	0.02+00	0.0E+00	0.02+00	0.02+00	0.02+00	(FROM WS2)	NOITALIANI	AIR-VOC	CAM-LAKE	SCENARIO 2	SUBCHRONIC
0.02+00	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.08+00	0.08100	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.04100	0.08+00	0.02+00	0.02+00	1.52-07	0.08+00	0.08+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.0E+00	0.0E+00	0.02+00	0.0E+00	0.02+00	0.0E+00	0.0E+00	0.02+00	0.02+00	9.0E-08	0.0E+00	0.08+00	8.82-09	9.92-08	8.7E-06	5.7E-07	6.7E-09	1.4E-07	8.0E-08	0.02+00	0.0E+00	5.3E-07	0.02+00	(FROM WS3)	ORAL	SURF WATER	CAM-LAKE	SCENARIO 3	DAILY INTAKE (mg/kg/day)
0.02+00	0.00+00	0.08+00	0.00+00		0.081.00	0.02+00	0.02+00	0.02+00	4.52-07	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	4.6E-09	0.02+00	0.0E+00	7.8E-10	8.82-09	7.72-07	5.0E-08	5.92-10	1.2E-08	7.1E-09	0.02+00	0.02+00	4.7E-08	0.02+00	(FROM WS4)	DERMAL	SURF WATER	CAM-LAKE	SCENARIO 4	: (mg/kg/day
6.72-08	0.00	2 . OE+00	1.78-00	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 20 00	6.84.08	0.02+00	3.7E-08	3.8E-08	3.2E-08	0.02+00	3.42-08	2.62-08	3.1E-08	1.42-08	1.12-08	0.0E+00	0.02+00	0.02+00	0.02+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.02+00	0.0E+00	0.02+00	2.2E-08	0.0E+00	0.02+00	1.9E-08	0.02+00	0:0E+00	2.9E-07	1.6E-09	1.7E-06	0.0E+00	1.82-08	2.2E-07	2.5E-06	4.5E-07	(FROM WS5)	ORAL	SEDIMENT	CAM-LAKE	SCENARIO 5	_
X XX								A.N.	AN.	X.	AN	AN	A.	AN	N.	K N	XN.	NA.	NA.	N.A.	×	NA.	N.A.	N.	N.	NA.	V N	NA.	K.	K N	N.	N.	NA.	N.	N.	×	0.02+00	8.0E-09	NA.	٨N	X.	(FRON WS6)	DERMAL	SEDIMENT	CAM-LAKE	SCENARIO 6	
NA AN						N .	AN.	AN	KN.	YN.	Y.	K N	K N	Y N	K N	X N	YN.	NA.	AN.	0E+00	0E+00	5E-11	7E-12	2E-11	1E-11	00+00	NA.	KN.	A.N	A.N	X.	XN.	AN.	AN	0E+00	2E-05	AN.	KN.	A.	6E-07	X.	(FROM WS1)	INHALATION	AIR-PART	CAM-LAKE	SCENARIO 1	
¥ \$	€ 3	5 3	E 3	£ }	5 3	Z ;	XX.	A.N.	KN.	Y.	KN.	XN.	Y.	YN.	Y.	AN.	XN.	KN.	NA.	0E+00	0E+00	00+30	0E+00	00+30	02+00	0E+00	N.	AN.	X.	NA.	K.	N N	KN.	NA.	0E+00	00+00	××	AN.	XX	0E+00	KN	(FROM WS2)	NOITALAHNI	AIR-VOC	CAM-LAKE	SCENARIO 2	SUBCERON
08+00	00100	00+30	00.00	00.00	00.00	02+00	02+00	0E+00	8E-06	02+00	02+00	02+00	02+00	02+00	02+00	0E+00	XN.	05+00	00+30	00+30	0E+00	00+30	00+30	02+00	00+30	0E+00	N.	9E-08	00+30	02+00	2E-06	XX	XX.	32-05	2E-05	72-06	XX.	XX	02+00	8E-06	00+30	(FROM WS3)	ORAL	SURF WATER	CAH-LAKE	SCENARIO 3	SUBCERONIC HAZARD QUOTIENT
VN 00+30		£ 3	: 3	£ 3	¥ ;	¥ ;	*	KK KK	2E-05	K.	KX.	Y.N	KN.	AN.	V N	KN.	AN NA	KN.	02+00	02+00	00+30	02+00	02+00	02+00	02+00	02+00	KN	5E-09	02+00	02+00	5E-07	XX	XX.	52-05	12-05	12-05	XX.	¥	02+00	72-06	02+00	(FROM WS4)	DERMAL	SURF WATER	CAH-LAKE	SCENARIO 4	OTIENT
0E+00 2E-07	- CO- CO- CO- CO- CO- CO- CO- CO- CO- CO	201	200	1 1 1 0 0	30 0	25-07	00+00	1E-07	22-06	1E-07	0E+00	1E-07	92-08	1E-07	5E-09	2E-08	A.N	00+00	00+00	02+00	0E+00	0E+00	02+00	0E+00	0E+00	0E+00	. NA	2E-08	0E+00	02+00	4E-06	. NA	KN.	1E-05	5E-06	9E-05	*	AN.	4E-05	4E-05	2E-03	(FROM WSS)	ORAL	SEDIMENT	CAH-LAKE	SCENARIO 5	
XX XX								XN.	YN.	KK.	NA.	AN	AN.	NA	AN	NA.	XN.	KN.	NA.	NA.	NA.	XN	XX.	X.	KN	N.	N.	XN.	X.	Y.N	A.	X N	K.	X N	KK.	VN	KN.	KN	AN.	XX.	A.	(FROM WS6)	DERMAL	SEDIMENT	CAH-LAKE	SCENARIO 6	

SUBCHRONIC RISK SUMMARY

FUTURE RES-CHILD (CL)

SITE NAME: CAMERON STATION
OPERABLE UNIT: DISK 5
FILE NAME: POP1
LAST UPDATED: 06/05/92

	•			61 TRICHLOROFLUOR	59 2,4-DICHLOROPH 60 2-(2,4,5-TRICH	57 PCB 1260 58 2,4,5-TRICHLOR				50 BETA-ENDOSULFA 51 DIELDRIN		48 BENZALDENYDE		45 2,2-BIS (PARA-	
		·		0.02+00	0.02+00	0.02+00	0.08+00	1.2E-11	0.05+00	0.0E+00 1.2E-11	0.02+00	0.02+00	0.0E+00	1.28-11	1.28-11
		giri.		0.0E+00	0.02+00	0.02+00	0.02+00	0.02+00	0.05+00	0.0E+00	0.0E+00	0.02+00	0.02+00	0.02+00	0.08+00
				0.0E+00	0.05+00	0.02+00	0.0E+00	0.02+00	4.1E-10	0.02+00	3.2E-07	1.8E-10	0.02+00	8.58-10	0.02+00
_				0.02+00	0.0E+00	0.0E+00	0.0E+00	0.00+00	3.5E-09	0.0E+00	2.1E-07	0.05+00	0.02+00	1.85-08	0.0E+00
			Popul	0.0E+00	0.0E+00	0.05+00	0.05+00	0.02+00	0.02+00	0.05+00	1.35-08	0.05+00	0.0E+00	3.1E-08	0.02+00
			POPULATION TOTAL	NA	KN KN	0.0E+00 NA	N N	N a	# X	X X	Y.	Z Z	N.	N 2	. N
				* *											
			4E-03	00+30	¥ ¥	¥ ¥	X X	¥ 3	₹ :	¥ ¥	¥ 3	¥ ¥	¥.	¥ 3	ž
			25.400	0E+00	K K	KN KN	r k	N X	¥	r r	¥ 3	¥ ¥	%	z z	×
·			,	02+00	08+00 00+30	0E+00	02+00	NY.	72-06	0E+00 00+30	80-38	32-06	02+00	× ×	0E+00
•	·		76.00	02+00	0E+00	r x	00+30	NA NA	6E-05	0E+00	58-08	22-03	00+00	× ×	0E+00
			, P	0E+00	00+20	00+30 VN	0E+00 0E+00	VN 00+30	02+00	0E+00	3E-09	00+00	00+30	¥ 3	02+00
			6 6	K.	¥ ¥	N K	N N	NA	N.	N X	X X	E &	* :	Z Z	N.

CHRONIC EXPOSURE SUMMARY

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FUTURE RES-CHILD (CL)

)						\						
¥	22-06	Ĕ	08+00	*	×	*	6.7E-08	0.03+00	0.05+00	0.02+00	1.58-11	PYRENE
¥	08+00	02+00	01+00	*	A.	¥	0.02+00	0.02+00	0.02+00	0.05+00	0.05+00	PHENOL
¥	28-06	¥	00+20	¥	*	K.	5.62-08	0.02+00	0.05+00	0.02+00	1.38-11	PHENANTHRENE
X.	02+00	XX.	05+00	A K	XX.	K.	0.02+00	0.02+00	0.05+00	1.18-21	2.38-12	NAPHTHALENE
¥.	4B-07	KN	02+00	A.K	NA.	K.	1.25-08	0.02+00	0.02+00	0.02+00	3.6E-12	INDENO [1,2,3-
X.	3E-07	KK KK	00+30	X X	AN.	Y.	1.2E-08	0.02+00	0.05+00	0.02+00	2.38-12	FLUORENE
X.	28-06	XN.	02+00	AN	N.A.	XN.	6.82-08	0.02+00	0.02+00	0.02+00	1.3E-11	PLUORANTHENE
AN	08+00	XX.	02+00	KN.	AN	N.	0.02+00	0.02+00	0.02+00	0.02+00	0.08+00	DIBENT [a,h] A
AN	18-06	XX.	02+00	XN.	KN.	N.	3.7E-08	0.08+00	0.02+00	0.02+00	7.5B-12	CHRYSENS
X.	28-06	22-05	90-38	A.N.	AN.	AN	3.8E-08	4.52-07	1.52-07	0.02+00	2.38-12	BIS (2-ETHYLHE
XX.	12-06	A.	02+00	AN	NA.	AN	3.28-08	0.02+00	0.02+00	0.02+00	6.0B-12	BENIO (k) FLUO
AN	. 08+00	X.	02+00	X.	KN.	K.	0.02+00	0.02+00	0.02+00	0.02+00	2.98-12	BEN20 (g,h,i)
AN	1E-06	X.	00+30	XX	AN	X.	3.42-08	0.02+00	0.08+00	0.0E+00	6.0E-12	
X.	9E-07	A.	00+30	X.	A.N.	X.	2.62-08	0.02+00	0.02+00	0.02+00		BENZO [a] PYRE
X.	1E-06	Y.	0E+00	AN	XN.	X.	3.1E-08	0.0E+00	0.02+00	0.02+00	1.5E-11	BENZO (A) ANTH
X.	52-08	XX.	0E+00	AN	A.A.	KN	1.4E-08	0.02+00	0.02+00	0.02+00	2.32-12	ANTHRACENE
K N	2B-07	AN	00+30	X.	AN	XN.	1.1E-08	0.02+00	0.02+00	0.02+00	2.38-12	ACENAPHTHENE
N.	08+00	00+30	02+00	AN	AN	KN.	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	2-METHYLPHENOL
K N	08+00	XN.	02+00	XX	YN.	KN.	0.02+00	0.02+00	0.02+00	0.02+00	2.3E-12	2-METHYLNAPHTH
X N	08+00	00+30	02+00	NA.	AN	A.N	0.02+00	0.02+00	0.02+00	0.02+00	0.0E+00	2,4-DIMETHYLPH
AN	08+00	00+30	02+00	0E+00	0E+00	NA.	0.0E+00	0.02+00	0.02+00	0.02+00	0.02+00	1,3-DIMETHYLBE
XX.	02+00	02+00	00+30	02+00	0E+00	X.	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	1,2-DIMETHYLBE
N.	02+00	00+30	0E+00	0E+00	5E-11	X.	0.05+00	0.02+00	0.02+00	4.2E-19	4.2E-12	XYLENES, TOTAL
N.	08+00	02+00	02+00	02+00	7E-12	N.	0.02+00	0.02+00	0.02+00	1.28-19	4.2E-12	TOLUZNE
K.	02+00	00+30	02+00	0E+00	2E-10	N.	0.02+00	0.02+00	0.02+00	1.2E-20	4.2E-12	TALIBOSITALE T
X.	08+00	02+00	00+30	02+00	1E-11	XX	0.02+00	0.02+00	0.02+00	2.98-20	4.2E-12	ETHYLBENZENE
N.	02+00	0E+00	00+30	0E+00	00+00	N.	0.02+00	0.02+00	0.02+00	0.08+00	0.0E+00	CARBON DISULFI
K.	XX	XN.	KN	X.	KN	X.	0.02+00	0.02+00	0.02+00	6.3E-19	4.2E-12	BENZENE
K N	2E-07	52-08	92-07	X.	AN	KN.	2.2E-08	4.6E-09	9.02-08	9.0E-17	4.28-12	ACETONE
X.	02+00	02+00	02+00	XN.	VN	K N	0.02+00	0.02+00	0.0E+00	0.02+00	1.1E-10	MUIDANAY (
K.	08+00	00+00	02+00	KN	Y.	N.	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	MOLTIVEL &
K N	42-06	5E-07	2E-06	AN.	AN.	KN.	1.92-08	7.8E-10	8.82-09	0.02+00	0.02+00	SILVER
AN	02+00	A.	1E-06	A.N	X.	NA.	0.0E+00	8.82-09	9.92-08	0.05+00	0.02+00	NITRITE
NA.	02+00	K.	5E-06	K.	KN	N.	0.02+00	7.7E-07	8.7E-06	0.02+00	0.02+00	NITRATE
X.	12-05	52-05	3E-05	K N	KN.	X.	2.9E-07	5.0E-08	5.7E-07	0.02+00	2.6E-11	NICKEL
KN.	58-06	12-05	2E-05	00+00	0E+00	N.	1.62-09	5.9E-10	6.7E-09	0.02+00	0.02+00	MERCURY
×	. 38-04	58-05	3E-05	0E+00	2E-04	××	1.72-06	1.2E-08	1.4E-07	0.02+00	1.1E-10	CHROMIUM
0E+00	02+00	12-04	8E-05	V N	K	0.02+00	0.0E+00	7.1E-09	8.0E-08	0.02+00	0.0E+00	CADMIUM (WATER
3E-04	4E-05	02+00	00+30	KN.	4 ×	8.02-09	1.8E-08	0.02+00	0.02+00	0.02+00	0.02+00	CADMIUM (FOOD)
××	\$0-2 \$	02+00	00+30	X.	XN.	××	2.2E-07	0.02+00	0.02+00	0.02+00	9.3E-12	BERYLLIUM
Z.	48-05	7E-06	82-06	02+00	6E-06	N.	2.5E-06	4.7E-08	5.3E-07	0.02+00	5.8E-10	BARIUM
¥.	28-03	00+30	02+00	. ·	X.	XX.	4.5E-07	0.02+00	0.02+00	0.02+00	0.02+00	ARSENIC
(FROM WS6)	(FROM WS5)	(FROM HS4)	(FROM WS3)	(FROM WS2)	· (FROM WS1)	(FROM WS6)	(FROM WS5)	(FROM WS4)	(FROM WS3)	(FROM WS2)	(FROM WS1)	CHEMICAL NAME
DERMAL	ORAL	DERMAL	ORAL	INHALATION	NOITALIANI	DERMAL	ORAL	DERMAL	ORAL	NOITALAHNI	NOITALANI	•
SEDIMENT	SEDIKENT	SURF WATER	SURF WATER	AIR-VOC	AIR-PART	SEDIMENT	SEDIMENT	SURF WATER	SURF WATER	AIR-VOC	AIR-PART	
			CAH-LAKE	CAH-LAKE	CAM-LAKE	CAM-LAKE	CAH-LAKE	CAH-LAKE	CAH-LAKE	CAH-LAKE	CAH-LAKE	
SCENARIO 6	SCENARIO 5	SCENARIO 4	SCENARIO 3	SCENARIO 2	SCENARIO 1	SCENARIO 6	SCENARIO 5	SCENARIO 4	SCENARIO 3	SCENARIO 2	SCENARIO 1	
		TENT	EAZARD QUOTIENT	CHRONIC				(mg/kg/day)	ILY INTAKE (CHRONIC DAILY INTAKE		

CHRONIC RISK SUMMARY

FUTURE
RES-CHILD (CL)

.

SITE NAME: CAMERON STATION
OPERABLE UNIT: DISK 5
FILE NAME: POP1
LAST UPDATED: 06/05/92

			43 2,2-BIS (PARA- 44 2,3-BIS (PARA- 45 2,2-BIS (PARA- 45 2,2-BIS (PARA- 46 ALDRIN 47 ALPHA CHLORDAN 48 BENZALDERYDE 49 BENZOIC ACID 50 BETA-ENDOSULFA 51 DIELDRIN 52 GAMMA-CHLORDAN 53 HEPTACHLOR EPO 55 LINDANE / GAMA 56 HEPTACHLOR JCBN 57 PCB 1260 58 2,4,5-TRICHLOR 59 2,4-DICHLOROPH 60 2-[2,4,5-TRICH 61 TRICHLOROPTUOR	•
			1.2E-11 1.2E-11 1.2E-11 0.0E+00 0.0E+00 0.0E+00 0.0E+00 1.2E-11 0.0E+00 1.2E-11 1.2E-11 1.2E-11 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00	
				-
		Reg.	0.0E+00	
			0.0E+00 1.9E-08 0.0E+00 1.4E-07 0.0E+00 2.1E-07 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 NA 0.0E+00	
•		РАТН РОРИІ	3.1E-08 3.1E-08 3.0E+00 0.0E+00	
		PATHHAY SUH (HI) POPULATION TOTAL	0.00 A A A A A A A A A A A A A A A A A A	
•		2E-04 5E-03	00 40 40 40 40 40 40 40 40 40	
		0M+00	00+30 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	
		25-04	0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00	
		28-03	0E+00 2E-03 0E+00 5E-08 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00	
	·	28-03	0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00	
		3E-04	* * * * * * * * * * * * * * * * * * * *	•

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LIFETIME EXPOSURE SUMMARY

FUTURE RES-CHILD (CL)

		LIFETIME AV	ERAGE DAILY	LIFETIME AVERAGE DAILY INTAKE (mg/kg/day)	(g/day)			LIFETI	LIFETIME EXCESS CA	CANCER RISK		
	SCENARIO 1	SCENARIO 2	SCENARIO 3	SCENARIO 4	SCENARIO 5	SCENARIO 6	SCENARIO 1	SCENARIO 2		SCENARIO 4	SCENARIO 5	SCENARIO 6
	ATRIPART	ATB-UCC	CAM-LAKE	CAH-LAKE	CAM-LAKE	CAM-LAKE	CAM-LAKE	CAH-LAKE	CAH-LAKE	CAH-LAKE	CAM-LAKE	CAM-LAKE
	NOI TALAHNI	NOITALANI	ORAL	DERMAL	ORAL	DERMAL	NOITALIANI	INHALATION	ORAL	DERMAL	ORAL	DERMAL
CHEMICAL NAME	(FROM WS1)	(FROM WS2)	(FROM WS3)	(FROM WS4)	(FROM WS5)	(FROM WS6)	(FROM WS1)	(FROM WS2)	(FROM WS3)	(FRON WS4)	(FROM WS5)	(FROM WS6)
ARSENIC ::	0.0E+00	0.02+00	0.02+00	0.02+00	3.8E-08	N.	0E+00	00+00	0E+00	02+00	72-08	KA KA
BARIUM	5.0E-11	0.02+00	4.7E-08	4.1E-09	2.1E-07	ΑN	N.	N N	X.	A.	AN.	N.
BERYLLIUM	8.1E-13	0.0E+00	0.02+00	0.05+00	1.8E-08	K.	7E-12	00+00	0E+00	02+00	8E-08	A.
CADMIUM (FOOD)	0.0E+00	0.02+00	0.02+00	0.02+00	1.5E-09	7.0E-10	00+30	02+00	XX.	AN	AN	K.
CADHIUM (WATER	0.02+00	0.02+00	7.12-09	6.2E-10	0.02+00	0.0E+00	00+30	00+30	V N	K N	K N	KN.
CERONIUM	9.2E-12	0.05+00	1.2E-08	1.1E-09	1.5E-07	X N	4E-10	05+00	X.	. AN	Y.	KN.
MERCURY	0.0E+00	0.02+00	5.9E-10	5.2E-11	1.3E-10	A.A.	KN.	A N	AN	AN	A.	AN
NICKEL .	2.3E-12	0.0E+00	5.0E-08	4.48-09	2.4E-08	ΑN	KN.	K N	Y.	AN.	V N	N.
NITRATE	0.0E+00	0.05+00	7.7E-07	6.8E-08	0.02+00	AN	X.	K N	K N	K K	AN	AN
NITRITE	0.05+00	0.02+00	8.85-09	7.7E-10	0.02+00	NA.	X.	X N	VN	YK	KN.	AN.
SILVER	0.0E+00	0.02+00	7.8E-10	6.8E-11	1.6E-09	K N	A.	K N	XN.	KN	N.	K N
HULTIVEL	0.02+00	0.02+00	0.02+00	0.05+00	0.02+00	Y.	N.	Y.	X.	A.	NA.	N.
AVIVITAN I	3.15-14	0.00100	0.08+00	0.08+00	0.00		NA.	NA	×	×	X	×
BENZENS	3.7E-13	5.5E-20	0.08+00	0.08+10	0.05+00	Z 7	0F+00	0F+00	OF+00	NA.	02+00 NA	Z 2
CARBON DISULFI	0.05+00	0.02+00	0.0E+00	0.02+00	0.02+00	ΚN	KN.	X.	Z.	AN .	Z.	NA :
THYLBENZENE	3.7E-13	2.5E-21	0.02+00	0.02+00	0.02+00	K N	KN.	K N	K.	A N	K N	NA
METHYLISOBUTYL	3.7E-13	1.02-21	0.02+00	0.02+00	0.02+00	AN	AN	K N	A.	AN	X.	A.N
TOLUENE	3.7E-13	1.0E-20	0.02+00	0.0E+00	0.02+00	A.N.	XN.	K N	X.	XN.	X.	XN.
XYLENES, TOTAL	3.7E-13	3.6E-20	0.02+00	0.05+00	0.02+00	XN.	KN	AN.	A.	AN	NA.	N.
1,2-DIMETHYLBE	0.0E+00	0.02+00	0.02+00	0.02+00	0.02+00	N.	NA.	X.	AN	K N	XX.	N.
1,3-DIMETHYLBE	0.0E+00	0.0E+00	0.02+00	0.02+00	0.0E+00	X.	K N	V N	N.A.	A.K	X.	X.
2,4-DIMETHYLPH	0.0E+00	0.05+00	0.02+00	0.05+00	0.02+00	N.	N.	. AN	X.	XN.	X.	KN.
2-METHYLDHENOT	2.08-13	0.05+00	0.00+00	0.08+00	0.08+00	2 2	¥ X	X.	. .	NA.	ı X	ı X
ACENAPHTHENE	2.02-13	0.02+00	0.02+00	0.05+00	9.22-10	¥ 3	2 3	¥ 4	2 7	2 2	¥ 4	2 3
ANTERACENE	2.02-13	0.0E+00	0.08+00	0.02+00	1.2E-09	XX :	X.	KN :	Z.	XX :	N.	NA :
BENZO [a] ANTE	1.3E-12	0.02+00	0.02+00	0.02+00	2.6E-09	K N	4 K	K N	0E+00	K N	1E-09	N.
BENIO (a) PYRE	5.2E-13	0.02+00	0.02+00	0.02+00	2.28-09	A.N.	N.	X N	0E+00	XN.	1E-08	N.
	5.2E-13	0.02+00	0.02+00	0.05+00	2.82-09	X.	X.	K N	02+00	AN	2E-09	AN.
	2.5E-13	0.02+00	0.02+00	0.08+00	0.02+00	: X		X.	N N	4) N	X.
NIS (2-ETHYLER	2.08-13	0.08+00	1.45-08	3 . OR 100	3.28-09	2 2	2 2	E 2	25-10	* P 10	18-11	X X
CHRYSENE	6.5E-13	0.02+00	0.08+00	0.02+00	3.1E-09	X :	X.	ž :	08+00	NA C	28-10	X S
DIBENZ [a,h] A	0.0E+00	. 0.0E+00	0.02+00	0.02+00	0.02+00	KN.	AN	4 8	0E+00	K X	0E+00	N.
FLUORANTHENE	1.2E-12	0.02+00	0.02+00	0.02+00	5.7E-09	X,	AN	N.	KN	KN	. XX	N.
FLUORENE	2.0E-13	0.02+00	0.08+00	0.02+00	1.02-09	KN.	X.	K N	A.	XX	NA.	N.
INDENO [1,2,3-	3.2E-13	0.02+00	0.02+00	0.02+00	1.0E-09	X.	A.A.	KN	0E+00	XX	6E-10	AN
NAPHTHALENE	2.02-13	9.2E-23	0.02+00	0.02+00	0.02+00	K K	X.	K N	XX.	KK KK	KK.	X.
PHENANTERENE	1.2E-12	0.02+00	0.02+00	0.02+00	4.7E-09	×	X.	×	*	×	×	X.
TONZEG	0.05+00	0.05+00	0.05+00	0.02+00	0.02+00	: ×	, NA	¥	¥		¥	×
PIKENS	1.35-14	0.02+00	0.05+00	0.08+00	3.6E-09	×	NA.	NA.	N.	ž	X	X.

FUTURE RES-CHILD (CL)

LITETIME RISK SUMMARY

SITE NAME: CAMERON STATION
OPERABLE UNIT: DISK 5
FILE NAME: POP1
LAST UPDATED: 06/05/92

				60 2-(2,4,5-TRICH				55 LINDANE / GAMA			51 DIELDRIN				ALDRIN	45 2.2-BIS (PARA-	2,2-BIS	
			0.05+00	0.05+00	0.05+00	1.0E-12	0.05+00	0.05+00	1.0E-12	0.0E+00	1.0E-12	0.05+00	0.02+00	0.02+00	0.02+00	1.08-12	1.0E-12	
			0.02+00	0.02+00	0.02+00	0.00+00	0.05+00	0.05+00	0.02+00	0.02+00	0.05+00	0.05+00	0.0E+00	0.0E+00	0.02+00	0.08+00	0.0E+00	
			0.0E+00	0.05+00	0.05+00	0.05+00	0.0E+00	0.05+00	0.0E+00	3.6E-11	0.02+00	2.9E-08	0.0E+00	1.62-11	0.05+00	7.68-11	0.0E+00	
			0.0E+00	V. V.		0.0E+00	0.05+00	0.05+00	0.02+00	3.1E-10	0.0E+00	1.88-08	0.0E+00	1.3E-08	0.05+00	1./8-09	0.0E+00	
	POPULATION TO	TOTAL PATI	0.0E+00	0.05+00	0.05+00	0.02+00	0.05+00	0.05+00	0.0E+00	0.02+00	0.05+00	1.1E-09	0.02+00	0.02+00	0.0E+00	2.6E-09	0.08+00	
	POPULATION TOTAL EXCESS RISK	TOTAL PATHWAY CANCER RISK	NA :	¥	×	0.0E+00	X 3	S &	N.	X :	Z X	, K	XX.	¥ ;	¥ \$:	N.	
	2E-07	4E-10		Z Z	Y.	N.	N S	9E-12	5E-12	08+00	2E-11	NA AN	AN	00+00	0E+00	: ×	0E+00	
		06+00	NA :	Z Z	ž	X.	× 3	0E+00	0E+00	00+00	0E+00	X.	A.	00+00	0E+00	¥ :	0E+00	
,		3E-10	¥ :	Z X	X.	0E+00	NA NA	08+00	02+00	5E-11	OE+OO	YK	AN AN	2E-11	11-11	2E-11	0E+00	
		22-08	* :	2 3	X.	02+00	VN VD+30	00+30	02+00	4E-10	OF+00	X.	N.	22-08	00120	6E-10	0E+00	
		2E-07	¥ ;	¥ %	Z.	0E+00	NA 00+30	02+00	0E+00	0E+00	OF 100	¥.	YN.	05+00	0 to 1 to 0	9E-10	02+00	
,		00+30	N.	z z	X.	0E+00	¥		X	¥ ;	NA AN	AN	AN.	Z 3	X.	X.	N.	

•

SUBCHRONIC RISK SUMMARY

SUBCHRONIC EXPOSURE SUMMARY

RES-CHILD (B)

CHEMICAL NAME (FROM WALL) (FROM WALL) (FROM WALL) (FROM WALL) (FROM WALL)	Q	F1	5	SC	ŀ		
BOK EST	ORAL	FISH	CAM-LAKE (B	ENARIO 1			
TROM MOST	0	•	•	SCENARIO 2	SUBCHRONIC		
LESON MOSE	_	_	_	SCENARIO 3	DAILY INTA	RES-CHILD (B)	FUTURE
TOW MORE!	•	•	•	SCENARIO	SUBCHRONIC DAILY INTAKE (mg/kg/day)	(B)	
TROOM BORD	•	0	•	SCENARIO 1 SCENARIO 2 SCENARIO 3 SCENARIO 4 SCENARIO 5 SCENARIO	γ)		
LEBON MON	0	0	0	SCENARIO 6			
ייים אייים א	TARO	FISH	CAM-LAKE (B	SCENARIO 1			
TROU WEST		0	0	SCENARIO 2	SUBCHRO		
1500 500	0	0	0	SCENARIO 3	SUBCHRONIC HAZARD QUOTIENT	RES-CHILD (B)	FUTURE
THOUSE WORK	•	0		SCENARIO 4	UOTIENT	(B)	
TEDOM WORK	•	0	0	SCENARIO 1 SCENARIO 2 SCENARIO 3 SCENARIO 4 SCENARIO 5 SCENARIO			
ABOUT TOTAL	0	0	0	SCENARIO 6			
				'			

42 PYRENE		40 PHENANTHRENE	39 NAPHTHALENB	38 INDENO [1,2,3-	37 FLUORENE	36 FLUORANTHENE	35 DIBENZ [a,h]	34 CHRYSENE	33 BIS (2-ETHYLHE	32 BENZO [k] FLUO	31 BENZO [g,	30 BENZO [b]	29 BENZO (a)	28 BENZO [a] ANTH	27 ANTERACENE	26 ACENAPHTHENE	25 2-METHYLPHENOL	24 2-METHYLNAPHTH	23 2,4-DIMETHYLPH	22 1,3-DIMETHYLBE	21 1,2-DIMETHYLBE	20 XYLENES,	19 TOLUENE	18 HETHYLISOBUTYL	17 ETHYLBENZENE	16 CARBON DISULFI	15 BENZENB	14 ACETONE	HUIDANAV EI	12 THALLIUM	11 SILVER	10 NITRITE	9 NITRATE	9 NICKEL	7 HERCURY	6 CHROMIUM	5 CADMIUM (WATER	4 CADMIUM (FOOD)	3 BERYLLIUM	2 BARIUM	1 ARSENIC	CHEMICAL				
	•	ENE	NR	,2,3-		ENE	, b] >		BATHE	FLUO	[g,h,i]	[b] FLUO	PYRE	HTNA	CS	ENE	HENOL	APHTH	HYLPH	BETAH	BETAR	TATOT		TALNE	ENE	SULFI											WATER	FOOD)	_		•	NAME (1	2	7	5	χl
0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.05+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.02+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.02+00	0.05+00	0.0E+00	0.0E+00	0.0E+00	1.2E-05	0.02+00	0.0E+00	1.2E-03	1.5E-05	1.8E-03	0.0E+00	6.1E-05	0.02+00	8.4E-04	0.02+00	(FROM WS1)	ORAL	FISH	CAM-LAKE (B	SCENARIO 1
																																								•	0.02+00	(FROM WS2)			8	SCENARIO 2
																										- [5]	,														_		0	0	0	- 1
																								. • •		4.															0.0E+00	(FROM WS3)	0	0	0	SCENARIO 3
																																									0.0E+00	(FROM WS4)	•	•	•	SCENARIO 4
																																										(FROM WS5)	_			SCENARIO 5
																																									_) (FROM WS6)	0	0	0	SCENARIO 6
0E+00	02+00	05+00	02+00	00+30	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	05+00	0E+00	0E+00	0E+00	0E+00	0E+00	AN	0E+00	0E+00	0E+00	0E+00	00+00	0E+00	0E+00	0E+00	00+30	AN.	0E+00	0E+00	0E+00	2E-03	X	AN.	6E-02	5E-02	9E-02	KN.	* **	0E+00	1E-02	0E+00	(FROM WS1)	ORAL			SCENARIO 1
_	_					_				•				•	•	_					•	•			•									•								(FROM WS2)		•	(B	SCENARIO 2
																																									0E+00	(FROM WS3)	_	_	•	SCENARIO 3
																																										(FROM WS4)	•	_	•	SCENARIO 4
												•																														(FROM WS5)	-	_	-	SCENARIO 5
											•																														_	(FROM WS6)	0	0	0	SCENARIO 6

SITE NAME: CAMERON STATION OPERABLE UNIT: DISK 5
FILE NAME: POP2

LAST UPDATED: 06/09/92

61 TRICHLOROFLUOR	59 2,4-DICHLOROPH	58 2,4,5-TRICHLOR	57 PCB 1260	56 HETHOXYCHLOR	55 LINDANE / GAMA	54 HEPTACHLOR EPO	53 HEPTACHLOR	52 GAMMA-CHLORDAN	51 DIELDRIN	50 BETA-ENDOSULFA	49 BENZOIC ACID	48 BENZALDEHYDE	47 ALPHA CHLORDAN	46 ALDRIN	45 2,2-BIS (PARA-	44 2,2-BIS (PARA-	43 2,2-BIS (PARA-
0.05+00	0.05+00	0.0E+00	5.1E-05	0.0E+00	0.0E+00	0.0E+00	0.02+00	8.7E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00	8.22-06	0.0E+00	3.8E-05	3.1E-05	0.0E+00

POPULATION TOTAL PATHWAY SUH (HI) 4E-01

0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00 0E+00

00+30

0E+00

00+30

02+00

0E+00

CHRONIC EXPOSURE SUMMARY

FUTURE RES-CHILD (B)

CHEMICAL NAME	SCENARIO 1 CAM-LAKE (B FISH ORAL ORAL		NE [mg/kg/day] NO 3 SCENARIO 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		SCENARIO 6	SCENARIO 1 CAM-LAKE (B FISH ORAL	CHRONIC SCENARIO 2 0 0	SCI EX	SCENARIO 3 0 0	O O O WITH
CHEMICAL NAME 1 ARSENIC	(FROM WS1) 0.0E+00	(FR	(FROM WS4	(FROM WS5)	(FROM WS6)		(FROM WS1)		M WS1) (FROM WS2) (FROM	H WS1) (FROM WS2) (FROM WS3) (FROM
2 BARIUM	8.4E-04						1E-02			
3 BERYLLIUM	0.0E+00						0E+00	0E+00	0E+00	0E+00
4 CADHIUM (FOOD)	6.1E-05						16-01	1E-01	1E-01	1E-01 ·
5 CADMIUM (WATER							00+30	00+30	02+00	05+00
6 CHROMIUM	1.8E-03						4E-01	4E-01	4E-01	4E-01
MERCURI	1.58-05						5E-02	5E-02	5E-02	5E-02
a NICKEL	1.25-05						6E-02	6E-02	6E-02	6E-02
10 NITRITE	0.00+00						0E+00	08+00	02+00	02+00
11 SILVER	1.2E-05	- -					2E-03	2E-03	2E-03	2E-03
12 THALLIUM	0.02+00						0E+00	0E+00	0E+00	0E+00
13 VANADIUM	0.05+00	;•					02+00	08+00	0E+00	0E+00
14 ACETONE	0.05+00	¥.					0E+00	02+00	0E+00	000
16 CARBON DISULFI	0.02+00						0E+00	0#+00	0E+00	0E+00
17 ETHYLBENZENE		`					0E+00	0E+00	0E+00	0E+00
							00+30	08+00	02+00	08+00
19 YOLUENES, TOTAL	0.08+00		•.		-		0E+00	05+00	06+00	05+00
1 1,2-DIMETRYLBE							0E+00	02+00	0E+00	0E+00
2 1,3-DIMETHYLBE							0E+00	00+30	00+00	06+00
23 2,4-DIMETHYLPH							0E+00	0E+00	02+00	021-00
No 1	0.02+00						00+00	06+00	06+00	0m+00
26 ACENAPHTHENE	0.02+00						02+00	0#+00	0E+00	02+00
28 BENZO [a] ANTH	0.02+00						08+00	00+00	00+00	08+00
BENZO				-			02+00	00+30	08+00	00+30
BENZO							0E+00	00+00	0E+00	0E+00
31 BENZO [g,h,i]	0.02+00						0E+00	0E+00	0000	02+00
33 BIS (2-ETHYLHE							02+00	06+00	05+00	05+00
							0E+00	08+00	0E+00	0E+00
	0.02+00						0E+00	0E+00	0E+00	0E+00
30 FLUORANTHENE	0.08+00						00+00	05+00	00+00	011+00
38 INDENO [1,2,3-	0.02+00						00+00	02+00	0M+00	0E+00
					,		00+30	02+00	00+30	02+00
40 PHENANTHRENE	0.01100						0E+00	0E+00	02+00	02+00
	0.02+00						08+00	0E+00	0E+00	0E+00
)					

CHRONIC RISK SUMMARY

FUTURE RES-CHILD (B)

SITE NAME: CAMERON STATION
OPERABLE UNIT: DISK 5
FILE NAME: POP2
LAST UPDATED: 06/09/92

•	61 TRICHLOROFLUOR	60 2-(2,4,5-TRICH	59 2,4-DICHLOROPH	58 2,4,5-TRICHLOR	57 PCB 1260	56 METHOXYCHLOR	55 LINDANE / GAMA	54 HEPTACHLOR EPO	53 HEPTACHLOR	52 GAMMA-CHLORDAN	51 DIELDRIN	50 BETA-ENDOSULFA	49 BENZOIC ACID	48 BENZALDEHYDE	47 ALPHA CHLORDAN	46 ALDRIN	45 2,2-BIS (PARA-	44 2,2-BIS (PARA-	43 2,2-BIS (PARA-
	0.0E+00	0.0E+00	0.02+00	0.02+00	5.1E-05	0.02+00	0.0E+00	0.0E+00	0.02+00	8.7E-06	0.02+00	0.02+00	0.0E+00	. 0.0E+00	8.2E-06	0.02+00	3.8E-05	3.1E-05	0.0E+00

02400	00.400	05400	96-01	VIDUAL SON (UT)
			2	ARREAS CITE (UT)
			0E+00	
			0E+00	
			00+30	
		•	0E+00	
		•	AN	
			00+30	
			0E+00	
			0E+00	
			0E+00	
			1E-01	
			0E+00	
			1E-01	
			0E+00	
			AN	
			AN	
			0E+00	

02+00 0E+00

LIFETIME RISK SUMMARY

FUTURE RES-CHILD (B)

FUTURE RES-CHILD (B)

LIFETIME EXPOSURE SUMMARY

WA PIREN		AU PREMANIERE					35 DIBENZ (a,h) A	34 CHRYSENE	33 BIS (2-ETHYLHE		(r'u'6) Ozuga re		BENZO (b)	29 BENZO (+)	28 BENZO (a) ANTH	27 ANTERACENE	26 ACENAPHTHENE	25 2-MBTHYLPHENOL	24 2-METHYLNAPHTH	23 2,4-DIMETHYLPH	22 1,3-DIMETHYLBE	1 1,4-01/E1E1E	TAIL 'SENTING 'S	10 VYTENER A	19 TOLIENE	18 WETHYLISOBUTYL	17 ETHYLBENZENE	16 CARBON DISULFI	15 BENZENE	14 ACETONE	HUIDANAV EI	12 THALLIUM	11 SILVER	10 NITRITE	9 NITRATE	8 NICKEL	/ MENCUKI	6 CHROMIUM	S CAUMIUM (WATER	CAURIUM (FOUD)	3 BERYLLIUM	2 BARIUM	1 ARSENIC	CHEMICAL NAME				
0.05+00	0.05+00						h] A 0.0E+00	0.02+00	YLHE 0.0E+00			•				0.02+00	NE 0.0E+00	ENOL 0.0E+00					- •						0.0E+00	0.0E+00	0.02+00	0.0E+00	1.1E-06	0.0E+00	0.0E+00	9.98-05	1.38-06					7.2E-05	0.0E+00	(FR		200	ETCU	OLDWANTO T
								•																																			0.05+00	(FROM WS2)			· c	י סרניטיטירט ע
																										•			**														0.0E+00	(FROM WS3)	0			S OTWANDO
																																											0.0E+00	(FROM WS4)	0	. c	• •	SCENAKIO 4
																														•													0.02+00	(FROM MS5)	0			SCENARIO S
																		•																									0.05+00	(FROM WS6)	0	0		SCENARIO 6
2	, N	NA.	×	00+30	NA		00+00	0E+00	0E+00	00+30	× ×		0000	05+00	0E+00	×	K N	AN	N.A.	XX.	NA.	NA.	NA.	3	Z A		NA :	NA.	0E+00	X.	NA.	ĸ.	NA.	AN	N.A.	AN	N.	NA.	AN	A.N.	0E+00	AN	0E+00	(FROM WS1)	ORAL	FISH	CAM-LAKE (B	SCENARIO 1
																																							:				02+00	(FROM WS2)		0	0	SCENARIO 2
																											•																0E+00	(FROM WS3)	0		0	SCENARIO 3
-																																											0E+00	(FROM WS4)	0	0	0	SCENARIO 4
																					·																						0E+00	(FROH WS5)	0	0		SCENARIO 5
																																												(FROM WS6)	0	6		SCENARIO 6

SITE NAME: CAMERON STATION
OPERABLE UNIT: DISK 5
FILE NAME: POP2
LAST UPDATED: 06/09/92

TOTAL PATHWAY CANCER RISK 3E-05

POPULATION TOTAL EXCESS RISK

3E-05

0E+00 9E-07 0E+00 9E-07 9E-07 9E-08 NA NA 0E+00
00+30

0E+00

0E+00

0E+00

SUBCHRONIC EXPOSURE SUMMARY

FUTURE RES-CHILD (PG)

42 PYRENE	41 PHENOL	40 PHENANTHRENS	39 NAPHTHALENE	38 INDENO [1,2,3-	37 FLUORENE	36 FLUORANTHENE	35 DIBERT [a,h] A				32 BENZO [k] FLUO	31 BENZO (g,	30 BENZO (b)	29 BENZO [a]	3		_		TOWERSTRUMENT OF THE PARTIES OF THE	THE PARTY OF THE	23 2 A DIMPHYLDH	22 1.3-DIMETHYLBE	21 1.2-DIMETHYLBE	20 XYLENES, TOTAL	19 TOLUENE	18 METHYLISOBUTYL	17 ETHYLBENZENE	16 CARBON DISULFI	15 BENZENE	14 ACETONE	HUIDANAVA E1	12 TRALLIUM	11 SILVER	10 NITRITE	9 NITRATE	8 NICKEL	7 MERCURY	6 CHROHIUM	5 CADHIUH (WATER	4 CADMIUM (FOOD)	3 BERYLLIUM	2 BARIUM	1 ARSENIC	CHEMICAL NAME					
1.72-10	0.02+00		NE 1.2E-11	,2,3- 5.0E-11	3.4E-11					HYLHE 1.2E-11	FLUO 8.2E-11		(a) FLUO 1.1E-10					È			_ `			_	4.5E-11	BUTYL 4.5E-11	ENE 4.5E-11	SULFI 0.0E+00	4.5E-11	4.5E-11	1.1E-09	0.05+00	0.02+00	0.02+00	0.02+00	2.8E-10	0.02+00	1.2E-09	WATER 0.0E+00	rood) 0.0E+00	5.28-11	5.0E-09			HOLLYTHNI	AIR-PART	PIC. GND	SCENARIO 1	
6	ŏ	0	-	-	-	0	ē	5	D	-	-	j	C			•	• •	. (•	- (0	•	•	-	_												•		•			•	_	(FROM WS2)	•	0	0	SCENARIO 2	SUBCHRONIC
																											.,					÷											0.0E+00	(FROM WS3)	0	•	0	SCENARIO 3	SUBCHRONIC DAILY INTAKE (mg/kg/day)
																																											0.02+00		0	0	0	SCENARIO 4	Ł
															•																												0.0E+00		0	0	0		ı
																			•																								0.0E+00	(FROM WS6)	0	0	. 0	SCENARIO 6	
3	23	22	22				¥ .	XX.	X.	A.N	: >	£ 3			N.	× .	¥.	KN.	KN.	A.N	X.	0E+00	0E+00	5E-10	82-11	01-37	28 10	28.10	20 20 20 20 20 20 20 20 20 20 20 20 20 2		NA.	NA.	A.N	X.	X N	XX.	0E+00	2E-04	X.	X.	× ×	5E-06	X.	(FROM WS1)	NOITALIANI	AIR-PART	PIC. GND	SCENARIO 1	
																																											0E+00	(FROM WS2)		. 0		SCENARIO 2	SUBCHKUN
																																											00+30	(FROM WS3)				SCENARIO 3	SUBCHRONIC HAZARD QUOTIENT
																																									,		00+30	(FROM WS4)				P OTHWRIDS	OLIENI
														•																													00+30	(FROM WS5)				C OTWARDS	
																																											00+30	(FROM WS6)				SCENARIO 0	

SUBCHRONIC RISK SUHHARY

FUTURE RES-CHILD (PG)

SITE NAME: CAMERON STATION
OPERABLE UNIT: DISK 5
FILE NAME: POP3
LAST UPDATED: 06/05/92

	6	59	58	57	56	55	ž	53	52	5	50	ŝ	â	S	6	Ġ	:
TRICHLOROFLUOR	2-(2,4,5-TRICH	2,4-DICHLOROPH	2,4,5-TRICHLOR	PCB 1260	METHOXYCHLOR	LINDANE / GAMA	HEPTACHLOR EPO	BEPTACHLOR	GAMMA-CHLORDAN	DIELDRIN	Beta-endosulta	BENZOIC ACID	Benzaldehyde	ALPHA CHLORDAN	ALDRIN	2,2-BIS (PARA-	2,2-BIS (PARA-
O.0E+00	TH 0.0E+00	PH 0.0E+00	DR 0.0E+00	6.4E-11	0.0E+00	A 0.0E+00	PO 6.4E-11	6.4E-1	N 0.0E+00	6.4E-11	A 0.0E+00	0.0E+00	0.02+00	N 0.0E+00	0.0E+00	N- 6.4E-11	1- 6.4E-11

POPULATION TOTAL PATHWAY SUM (HI) 2E-04 2E-04

0E+00

0E+00

02+00

0E+00

0E+00

•

CHRONIC EXPOSURE SUMMARY

:	10	•	•	7	0	S	_	w	N	,_							
	10 NITRITE	NITRATE	NICKEL	MERCURY	CHRONIUM .	CADMIUM (WATER	CADHIUM (FOOD)	BERYLLIUM	BARIUM	ARSENIC	CHEMICAL NAME						
	0.02+00	0.02+00	2.8E-10	0.0E+00	1.2E-09			5.2E-11	5.0E-09	0.02+00	(FROM WS1)	INHALATION	AIR-PART	PIC. GND	-	1	
										0.0E+00	(FROM WS2)	0	0	•	SCENARIO 2 SCENARIO 3 SCENARIO 4	CHRONIC DAI	
										0.0E+00	(FROM WS3)	0	0	0	SCENARIO 3	CHRONIC DAILY INTAKE (mg/kg/day)	RES-CHILD (PG)
										0.0E+00	_		0	0			(PG)
										0.0E+00	_	0	0	0	SCENARIO 5 SCENARIO 6		
										0.0E+00	_	0	0	0	SCENARIO 6		
	AN	A.N	AN.	0E+00	2E-03	. NA	YN.	XX.	5E-05	AN.	(FROM WS1)	INHALATION	AIR-PART	PIC. GND	SCENARIO 1		
											(FROM WS2)	0	0	0			
										0E+00	(FROM WS3)	0	0	•	SCENARIO 3	CHRONIC HAZARD QUOTIENT	RES-CHILD (PG)
										0E+00	(FROM WS4)	0	0	0	SCENARIO 4	ENT	(PG)
										0E+00	(FROM WS2) (FROM WS3) (FROM WS4) (FROM WS5) (FROM WS6)	0	0	0	SCENARIO 2 SCENARIO 3 SCENARIO 4 SCENARIO 5 SCENARIO 6		
										0E+00	(FROM WS6)	0	0	0	SCENARIO 6		
															•		

26 ACENAPHTHENE
27 ENTERACENE
28 BENZO [a] PYRE
30 BENZO [b] FLUO
31 BENZO [c],h,1]
32 BENZO [k] FLUO
31 BENZO [k] FLUO
31 BENZO [k] FLUO
32 BENZO [k] FLUO
33 BIS (2-ETHYLHE
34 CHRYSENE
35 DIBENZ [a,h] A
36 FLUORANTHENE
37 FLUORENE
37 FLUORENE
38 INDENO [1,2,339 NAPHTHALENE
40 PHERANTERENE

4.2E-11 8.2E-11 1.2E-11 1.3E-10 0.0E+00

9.8E-11 1.1E-10 5.9E-11 1.3E-10

PYRENE

1.98-10 3.48-11 5.02-11 1.28-11 1.58-10 0.02+00

19 TOLUENE
20 XYLENES, TOTAL
21 1,2-DIMETHYLBE
22 1,3-DIMETHYLBE
23 2,4-DIMETHYLPH
24 2-METHYLNAPHTH
25 2-METHYLPHENOL

0.08+00 4.58-11 4.58-11 4.58-11 4.58-11 0.08+00 0.08+00 0.08+00 0.08+00 0.08+00 0.08+00

16 CARBON DISULFI 17 ETHYLBENZENE 18 METHYLISOBUTYL

13 VANADIUM 14 ACETONE 15 BENZENE

1.1E-09 4.5E-11 4.5E-11

NA 0E+00 2E-10 2E-09 8E-11 5E-10 0E+00

11 SILVER
12 THALLIUM

0.02+00

0.02+00 0.02+00

FUTURE

CHRONIC RISK SUMMARY

SITE NAME: CAMERON STATION
OPERABLE UNIT: DISK 5
PILE NAME: POP3
LAST UPDATED: 06/05/92

	61 TRICHLOROFLUOR	60 2-(2,4,5-TRICE	59 2,4-DICHLOROPH	58 2,4,5-TRICHLOR	57 PCB 1260	56 METHOXYCHLOR	55 LINDANE / GAMA	54 HEPTACHLOR EPO	53 HEPTACHLOR	52 GAMMA-CHLORDAN	51 DIELDRIN	50 BETA-ENDOSULFA	49 BENZOIC ACID	48 BENZALDEHYDE	47 ALPHA CHLORDAN	46 ALDRIN	45 2,2-BIS (PARA-	44 2,2-BIS (PARA-	43 2,2-BIS (PARA-
,	0.0E+00	0.02+00	0.02+00	0.02+00	6.4E-11	0.02+00	0.0E+00	6.4E-11	6.4E-11	0.02+00	6.4E-11	0.02+00	0.02+00	0.0E+00	0.02+00	0.02+00	6.4E-11	6.4E-11	6.4E-11

POPULATION TOTAL PATHWAY SUH (HI) 2E-03 2E-03 0E+00 02+00

0E+00

0E+00

LIFETIME EXPOSURE SUMMARY

RES-CHILD (PG)

FUTURE

CADMIUM (FOOD) BARIUM ARSENIC BERYLLIUM CHEMICAL NAME (FROM WS1) SCENARIO PIC. GND INHALATION AIR-PART 0.0E+00 0.0E+00 4.5E-12 4.3E-10 (FROM WS2) SCENARIO SCENARIO 2 SCENARIO 3 SCENARIO 4 SCENA 0.0E+00 (FROM WS3) 0.0E+00 (FRON WS4) 0.0E+00 (FROM WS5) SCENARIO 5 0.0E+00 (FROM WS6) SCENARIO 0.0E+00 INHALATION (FROM WSI) AIR-PART PIC. GND SCENARIO 1 02+00 4E-11 0E+00 (FROH WS2) SCENARIO 2 05+00 LIFETIME EXCESS CANCER RISK (FRON WS3) SCENARIO 3 SCENARIO 4 0E+00 (FROM WS4) 00+30 (FROM WS5) SCENARIO 00+30 տ (FROH WS6) SCENARIO 6 0E+00

RES-CHILD (PG)

Z

FUTURE

OPERABLE UNIT: DISK 5
FILE NAME: POP3
LAST UPDATED: 06/05/92

SITE NAME: CAMERON STATION

0E+00

BENZO [b] FLUO BENZO (a) PYRE

9.2E-12

8.5E-12 1.1E-11 3.4E-12 0.0E+00

BENZO [a] ANTH

ANTERACENE

5.0E-12

2-KETHYLPHENOL 2-METHY LNAPHTH 2,4-DIMETHYLPH 1, 3-DIMETHYLBE 1,2-DIMETHYLBE

0.02+00

1.1E-12

0.0E+00 0.0E+00

Acenaphthene

BENZO (k) FLUO BEN20 [g,h,i]

PYRENE

PHENOL

0.0E+00 1.3E-11

1.5E-11

PHENANTHRENE **NAPHTHALENS**

INDENO [1,2,3-FLUORENE FLUORANTHENE

1.6E-11 3.0E-12 4.3E-12

1.1E-12

DIBENZ [a,h] A CHRYSENE BIS (2-ETHYLHE

0.0E+00

1.1E-11 1.1E-12 7.1E-12 3.6E-12 19 TOLUENE 19 TOLUENE

3.9E-12 3.9E-12 3.9E-12

XYLENES, TOTAL

16 CARBON DISULFI

BENZENE

ACETONE

ETHYLBENZENE

3.9E-12 0.0E+00 3.9E-12 3.9E-12 9.1E-11

IO NITRITE SILVER THALLIUM WANADIUM

0.0E+00 0.0E+00

0.02+00 0.0E+00 0.0E+00 1.0E-10

NITRATE MERCURY CHROMIUM

NICKEL

2.4E-11

CADHIUM (WATER

0.0E+00

4E-09 0E+00

 $\frac{1}{2}J$

61 TRICHLOROFLUOR	60 2-(2,4,5-TRICH	59 2,4-DICHLOROPH	58 2,4,5-TRICHLOR	57 PCB 1260	56 METHOXYCHLOR	55 LINDANE / GAMA	54 HEPTACHLOR EPO	53 HEPTACHLOR	52 GAMMA-CHLORDAN	51 DIELDRIN	50 BETA-ENDOSULFA	49 BENZOIC ACID	48 BENZALDEHYDE	47 ALPHA CHLORDAN	46 ALDRIN	45 2,2-BIS (PARA-	44 2,2-BIS (PARA-	43 2,2-BIS (PARA-
0.0E+00	0.0E+00	0.0E+00	0.0E+00	5.5E-12	0.0E+00	0.0E+00	5.5E-12	5.5E-12	0.02+00	5.5E-12	0.02+00	0.0E+00	0.02+00	0.0E+00	0.0E+00	5.5E-12	5.5E-12	5.5E-12

POPULATION TOTAL EXCESS RISK TOTAL PATHWAY CANCER RISK 4E-09

4E-09 2E-12
NA
0E+00
0E+00
NA
NA
NA
9E-11
0E+00
3E-11
5E-11
NA
NA
NA
NA
NA 0E+00 00+30

0E+00

02+00

0E+00

SUBCHRONIC EXPOSURE SUMMARY

FUTURE RES-CHILD (BF)

AZ FINEN		_					36 FLUORANTHENE	35 DIBENZ (a,h) A	34 CHRYSENE					BENZO					25 2-METHYLPHENOL	24 2-METHYLNAPHTH	23 2,4-DIMETHYLPH	22 1,3-DIMETHYLBE	21 1,2-DIMETHYLBE	20 XYLENES, TOTAL			17 ETHYLBENZENE	16 CARBON DISULFI	15 BENZENE	14 ACETONE	MOTOWAYA ET	HOTTTVHI ZI		10 NITRITE	9 NITRATE	8 NICKEL	7 MERCURY	6 CHROMIUM	5 CADHIUM (WATER	A CADMIUM (FOOD)	3 BERYLLIUM	2 BARIUM	1 ARSENIC	CHEMICAL NAME					
	6.38-10			7		1.22-10	INE 6.8E-10	Ī					.il 1.5E-10	FLUO 3.8E-10	PYRE 3.5E-10	ANTH ' 4.5E-10	2.1E-10	NE 1.4E-10	ENOL 0.0E+00	_	0									1.65-10	1 65-10	0.00+00	0.00100	0.05+00	0.01100	2.05.09	0.00+00	4.38-09			1.9E-10	1.82-08	0.0E+00	(FR	INHALATION	AIR-PART	BALL FIELD	SCENARIO 1	
•	0 (D 1	01	-	0	•	0		•	•		•	-	•	•	•	•	•	•	-	•										.**	.٤		·									0.0E+00	(FROM WS2)	0	•	0	SCENARIO 2	SUBCHRONIC I
																												•				•	•										0.0E+00	(FROM WS3)	0		. 0	SCENARIO 3	SUBCHRONIC DAILY INTAKE (mg/kg/day)
																																											0.02+00	(FROM WS4)				SCENARIO 4	(mg/kg/day)
																																								•			0.05+00	(FROM WS5)				SCENARTO	
																																											0.00400	(FRUM WS6)				OCENARIO 0	
	AN	NA.	AN	× ×	2		× 1	K X	X.	K N	Y.N	A.				<u> </u>	2		2	NA :	×.	NA.	02+00	0E+00	2E-09	3E-10	8E-10	6E-10	0E+00	K N	××	××	N.	X.N	N.	A.N	XX.	0E+00	7E-04	NA :	* X	Z.	2E-05	NA (100 101)	TABOR RELI	ALK-FALL	מאטרי דובער	TITLE TITLE	CCENTELO 1
	~	~	_	-		•	,						•									•	_										٠											0E+00	1 CSM MOBS!	.	.	0	SCENARIO 2
																																											;	0E+00	FROM WS31	o (.	0	NARIO 2 SCENARIO 3 SCENA
				•																																								00+00	(FROM WS4)	0	0	0	SCENARIO 4
												•					÷																											02+00	(FROM WS5)	0	0	0	SCENARIO 5
)																																											0E+00	(FROM WS6)	0	0	0	SCENARIO 6

SUBCHRONIC RISK SUMMARY

FUTURE RES-CHILD (BF)

SITE NAME: CAMERON STATION
OPERABLE UNIT: DISK 5
FILE NAME: POP4
LAST UPDATED: 06/05/92

; ,	61 TRICELOROFLUOR	50 2-(2,4,5-TRICH	59 2,4-DICHLOROPH	58 2,4,5-TRICHLOR	57 PCB 1260	56 HETBOXYCHLOR	55 LINDANE / GAMA	54 HEPTACHLOR EPO	53 HEPTACHLOR	52 GAMMA-CHLORDAN	51 DIELDRIN	50 BETA-ENDOSULFA	9 BENZOIC ACID	8 BENZALDEHYDE	17 ALPHA CHLORDAN	46 ALDRIN	45 2,2-BIS (PARA-	14 2,2-BIS (PARA-	13 2,2-BIS (PARA-	
	0.0E+00	0.0E+00 ·	0.0E+00	0.02+00	2.3E-10	0.0E+00	0.0E+00	2.3E-10	2.3E-10	0.02+00	2.3E-10	0.02+00	0.02+00	0.0E+00	0.0E+00	0.0E+00	2.3E-10	2.3E-10	2.3E-10	

PATHWAY SUH (HI)
POPULATION TOTAL

7E-04

0E+00

05+00

CHRONIC EXPOSURE SUMMARY

FUTURE RES-CHILD (BF)

42 PYRENE		_			36 FLUORANTHENS	35 DIBENE [a,h] A	-	33 BIS (2-ETHYLHE		BENZO [q,	BENZO [b]		28 BENZO (A) ANTE	4 6				22 1, 3-DIMETHYLBE	21 1,2-DIMETHYLBE	20 XYLENES, TOTAL	19 TOLUENE	18 METHYLISOBUTYL	17 ETHYLBENZENE	16 CARBON DISULFI	15 BENZENE	14 ACETONE	13 VANADIUM	12 TEALLIUM	10 NITHIE		8 NICKEL	7 MERCURY	6 CHROMIUM	5 CADMIUM (WATER	4 CADMIUM (FOOD)	3 BERYLLTUM	2 BARIUM	1 10cPuic	CHEMICAL NAME					
6.32-10	5.6E-10		- 1.8E-10	1.22-10	6.8E-10	0.0E+00		4.58-11			w	. س		2.1E-10					_		1.6E-10				1.62-10	1.6E-10	3.82-09	0.02+00	0.08+00	0.05+00	1.08-09	0.02+00			0.02+00	1.92-10	1.82-08	0.08+00	FROM WS11	INHALATION	AIR-PART	BALL FIELD	SCENARIO 1	
											,],#		2 (1) 2 (2) 2 (3)	•									0.05+00	(FROM WS2)	0	0	0	SCENARIO 2	CHRONIC DAIL
																							•															0.02+00	(FROM WS3)	0	0		SCENARIO 3	CHRONIC DAILY INTAKE (mg/kg/day)
																																						0.0E+00	FROM WS41	0	0		SCENARIO 4	o/kg/day)
												•	•																								•	0.0E+00	(FROM WS5)	0	0	0	SCENARIO 5	
																																					;	0.05+00	(FROM WS6)	0	0	0	SCENARIO 6	
X.	××	XX.	XN.	YN	NN.	AN	XN.	NA.	. AN	AN	AN	AN	AN.	AN .	X ::	N :	X X	00+30	05+00	2E-09	3E-10	8E-09	6E-10	00+00	Y N	YN.	N.	KN.	× :	2 2	E N	0E+00	7E-03	XX	4 %	YN.	2E-04	×.	(FROM WS1)	INHALATION	AIR-PART	BALL FIELD	SCENARIO 1	
																																						0E+00	(FROM WS2)	0	0	0	SCENARIO 2	CHRONIC
			•																																			0E+00	(FROM WS3) . (FROM WS4)	0	0		SCENARIO 3	CHRONIC HAZARD QUOTIENT
																																					•	02+00	(FROH WS4)	0	0	0	SCENARIO 4	ENT
																																						0E+00	(FROM WS5)	0	0	0	SCENARIO 5	
																																						0E+00	(FROM WS6)	0	0	0	SCENARIO 6	

CHRONIC RISK SUMMARY

FUTURE RES-CHILD (BF)

SITE NAME: CAMERON STATION
OPERABLE UNIT: DISK 5
FILE NAME: POP4
LAST UPDATED: 06/05/92

												•							•
PATHWAY SUH (HI)																			
7E-03	00+30	K N	N.	X.	٨x	AN	٨N	AN	N.	AN	NA.	AN	X.	4N	N.	AN.	ΑN	A.A.	K N
0E+00				•				•				,							
0E+00																			

43 2,2-BIS (PARA44 2,2-BIS (PARA45 2,2-BIS (PARA46 ALDRIN
47 ALPHA CHLORDAN
48 BENZALDEHYDE
49 BENZOL ACID
50 BETA-ENDOSULFA
51 DIELDRIN
52 GAMMA-CHLORDAN
53 HEPTACHLOR
54 HEPTACHLOR
55 LINDANE / GAMA
56 HETHOXYCHLOR
57 PCB 1260
58 2,4,5-TRICHLOROPH
60 2-(2,4,5-TRICH
61 TRICHLOROFLUOR

2.3E-10 2.3E-10 2.3E-10 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 2.3E-10 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E+00

POPULATION TOTAL 7E-03

Spirit State

0E+00

02+00

0E+00

LIFETIME EXPOSURE SUMMARY

RES-CHILD (BF)

ARSENIC CHEMICAL NAME SCENARIO 1 BALL FIELD (FROM WS1) AIR-PART INHALATION 0.0E+00 (FROH WS2) (FROM WS3) (FROM WS4) SCENARIO 2 LIFETIHE AVERAGE DAILY INTAKE (mg/kg/day)
SCENARIO 2 SCENARIO 3 SCENARIO 4 SCENARIO 5 0.0E+00 0.0E+00 0.02+00 (FROM WS5) (FROM WS6) 0.0E+00 SCENARIO 6 0.0E+00 (FROM WS1) INHALATION AIR-PART BALL FIELD SCENARIO 1 00+30 LIFETIME EXCESS CANCER RISK SCENARIO 2 SCENARIO 3 SCENARIO 4 (FROM WS2) (FROM WS3) 0E+00 0E+00 (FROM WS4) 0E+00 (FROM WS5) SCENARIO 5 0E+00 (FROM WS6) SCENARIO 6 0E+00

	RES-CHILD
	(BF)

1	LIFETIME
	RTSK
	SERVARY

OPERABLE UNIT: DISK 5
FILE NAME: POP4 LAST UPDATED: 06/05/92 SITE NAME: CAMERON STATION

5.4E-11 0.0E+00 4.8E-11 3.8E-12

1.6E-11

PHENANTHRENE **SHETYBLE AVN** PHENOL INDENO [1,2,3-

PYRENE

FLUORANTHENE FLUORENE DIBENZ (a,h) A 0.0E+00 5.8E-11 1.1E-11

2.5E-11 3.8E-12 3.9E-11

0 BENZO (b) FLUO 1 BENZO (g,h,i) 2 BENZO (k) FLUO CHRYSENE BIS (2-ETHYLHE

3.9E-11

1.2E-11 1.8E-11 0.0E+00

3.8E-12

0.0E+00 0.0E+00

1.4E-11 1.4E-11 1.4E-11

20 XYLENES, TOTAL

21 1,2-DIMETHYLBE

0.0E+00

15 BENZENE 14 ACETONE

1.4E-11

0E+00

HOIDVNYA ET

2,4-DIMETHYLPH 2-METHYLPHENOL

ACENAPHTHENE

ANTHRACENE

28 BENZO [a] ANTH BENZO (a) PYRE

22 1,3-DIMETHYLBE

16 CARBON DISULFI 17 ETHYLBENZENE 18 METHYLISOBUTYL 19 TOLUENE

12 TEALLIUM

3.2E-10 0.0E+00 0.0E+00

0.0E+00

1.4E-11

9 NITRATE 10 NITRITE 11 SILVER

CHRONIUM

CADMIUM (FOOD)

BARIUM BERYLLIUM

1.5E-09 1.6E-11

CADMIUM (WATER

0.0E+00 0.0E+00

MERCURY

0.0E+00 3.7E-10

> 2E-08 0E+00 0E+00 1E-10

.,.

8.7E-11

NICKEL

1.4E-11

24 2-METHYLNAPHTH

3.0E-11

3.3E-11 1.3E-11

2	60	59	58	57	56	55	5	S	52	51	Š	\$	8	47	6	ŝ	=	43
TRICHLOROFLUOR	2-(2,4,5-TRICH	2,4-DICHLOROPH	2,4,5-TRICHLOR	PCB 1260	METHOXYCHLOR	LINDANE / GAMA	HEPTACHLOR EPO	HEPTACHLOR	GAMMA-CHLORDAN	DIELDRIN	BETA-ENDOSULFA	BENZOIC ACID	BENZALDEHYDE	ALPHA CHLORDAN	ALDRIN	2,2-BIS (PARA-	2,2-BIS (PARA-	2,2-BIS (PARA-
0.0E+00	0.02+00	0.0E+00	0.02+00	2.0E-11	0.0E+00	0.0E+00	2.0E-11	2.0E-11	0.0E+00	2.0E-11	0.02+00	0.0E+00	0.02+00	0.0E+00	0.0E+00	2.0E-11	2.0E-11	2.0E-11

7E-12
NA
02+00
0E+00
0A
NA
NA
NA
NA
NA

TOTAL PATHWAY CANCER RISK 2E-08

POPULATION TOTAL EXCESS RISK

2E-08

0E+00

0E+00

0E+00

0E+00

0E+00

and the state of t

SUBCHRONIC EXPOSURE SUMMARY

FUTURE RES-CHILD (RES)

0.02+00 NA	0.0E+00 NA		39 NAPETHALENE 0.0E+00 NA 7.0E-19	38 INDENO [1,2,3- 0.02+00 NA 0.02+00	O.GE+OO NA	Property of the contract of th	PT.DORANTHENE 0.0E+00 NA	35 DIBENZ (a,h) A 0.0E+00 NA 0.0E+00	34 CHRYSENE 0.0E+00 NA 0.0E+00	AN	C.OE+CO NA	0.0E+00	BENZO (5) FLUO 0.0E+00 NA	BENZO (a) PYRE 0.0E+00 NA	BENZO [a] ANTH 0.0E+00 NA	0.0E+00 NA	26 ACENAPHTHENE 0.0E+00 NA 0.0E+00	25 2-METHYLPHENOL 0.0E+00 NA 0.0E+00	0.0E+00 NA	0.0E+00 NA	22 1,3-DIMETHYLBE 0.0E+00 NA 0.0E+00	0.0E+00 NA	20 XYLENES, TOTAL . 7.8E-06 NA 2.7E-16	19 TOLUENE 6.9E-06 NA 7.6E-17	18 HETHYLISOBUTYL 6.9E-06 NA 7.6E-18	17 ETHYLBENZENE 6.9E-06 NA 1.9E-17	16 CARBON DISULTI 0.0E+00 NA 0.0E+00	15 BENZENE 6.9E-06 NA . 4.1E-16	14 ACETONE 6.9E-06 NA 5.9E-14	1.8E-04 NA	UM 0.0E+00 NA 🔆	0.0E+00 NA	0.0E+00 NA	E 0.0E+00 NA	1.2E-04 NA	0.0E+00 NA	1.6E-04 NA	0.02+00 0.02+00	FOOD) 0.0E+00 0.0E+00	3 BERYLLIUM 8.9E-06 NA 0.0E+00	2 BARIUM 6.0E-04 NA 0.0E+00	1 ARSENIC 0.0E+00 NA 0.0E+00 0.0E+00	CHEMICAL NAME (FROM WS1) (FROM WS2) (FROM WS3) (FROM WS4) (FRO	ORAL DERHAL INHALATION 0	SOIL SOIL AIR-VOC 0	RESIDENCE RESIDENCE RESIDENCE 0		SUBCHRONIC DAILY INTAKE (mg/kg/day)
08+00	08+00	02+00	02+00	02+00	00+30		05+00	02+00	02+00	28-04	00+30		08+00	02+00	0E+00	0E+00	0E+00	NA.	0E+00	0E+00	0E+00	0E+00	2E-06	3E-06	1E-05	7E-06	0E+00	YN.	7E-06	3E-02	0E+00	ÓE+00	AN AN		6E-03	0E+00	96-00	KN.	XX :	2E-03	9E-03	_	(FROM WS5) (FROM WS6) (FROM WS1)	0 0 ORAL	0 0 SOIL	0 0 RESIDENCE	SCENARIO 5 SCENARIO 6 SCENARIO 1	
			AN AN	NA NA	NA NA				NA . NA	NA NA	NA NA	·															NA 0E+00					•					0.2					NA.	WS2)	F	SOIL AIR-VOC	RESIDENCE	SCENARIO 2 SCENARIO 3 SCENARIO	SUBCHRONIC HAZARD QUOTIENT
																																										02+00	(FROM WS5) (FROM WS6	0		0	O 4 SCENARIO 5 SCENARIO 6	

SUBCHRONIC RISK SUMMARY

FUTURE RES-CHILD (RES)

1

SITE NAME: CAMERON STATION
OPERABLE UNIT: DISK 5
FILE NAME: POP5
LAST UPDATED: 06/05/92

			61 TRICHLOROFLUOR	60 2-(2,4,5-TRICH	59 2,4-DICHLOROPH	58 2,4,5-TRICHLOR	57 PCB 1260	56 METHOXYCHLOR	55 LINDANE / GAMA	54 HEPTACHLOR EPO	53 HEPTACHLOR	52 GAMMA-CHLORDAN	51 DIELDRIN	50 BETA-ENDOSULFA	49 BENZOIC ACID	48 BENZALDEHYDE	47 ALPHA CHLORDAN	46 ALDRIN	45 2,2-BIS (PARA-	44 2,2-BIS (PARA-	43 2,2-BIS (PARA-
			0.0E+00	4.5E-08	1.82-07	3.9E-08	4.2E-06	1.5E-06	0.0E+00	0.02+00	3.4E-06	2.1E-06	3.4E-06	8.7E-07	0.0E+00	0.06+00	2.7E-06	0.0E+00	3.6E-06	3.5E-06	4.2E-06
			K N	KN	K N	K N	2.3E-06	K.	AN.	A.	A.	AN	A.	A N	X.	KN	AN	N.	X.	X.	K N
			0.02+00	0.0E+00	0.0430.0	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.02+00	0.0E+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.0E+00	0.02+00	0.02+00	0.0E+00	0.0E+00
POPULATION TOTAL	PATHWAY SUM (HI)																				
2E-01	2E-01	• •	00+30	6E-06	2E-05	4E-07	N.	3E-04	0E+00	K.	7E-03	4E-02	7E-02	4E-03	0E+00	0E+00	5E-02	0E+00	K.	N.	8E-03
	0E+00		NA.	AN	YN	N.	KN.	N.	X.	KN.	N.	AN	AN.	×.	X.	KN.	K N	X.	XX	XX	K N
	02+00		02+00	N.	X N	KN KN	N.	K N	XX	AN.	KN KN		N.	×	X.	X	¥	X	¥	X.	NA.
	0E+00		•																		
	06+00				٠																
	90																				

0E+00

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CHRONIC EXPOSURE SUMMARY

FUTURE RES-CHILD (RES)

CHRONIC RISK SUMMARY

FUTURE RES-CHILD (RES)

	•	CCENTO 1	CHRONIC DAI	ΙŽ	-		SCENARIO 6	CCENTRYO 1	CHRONIC	IH.	NT	S OT GENESOS	OLGUNGOS
		RESIDENCE	RESIDENCE	RESIDENCE	0	0 SCEWAYTO 2	0 SCENARIO 0	RESIDENCE	RESIDENCE	RESIDENCE	D STEWNSON	SCENANIO	, ,
		TIOS	TIOS	AIR-VOC	0	0 (0 (SOIL	TIOS	AIR-VOC	0 (
		ORAL	DERMAL	NOITALANI	0	0	0	ORAL	DERMAL	INHALATION	0		
_	CHEMICAL NAME	(FROM WS1)	(FROM WS2)	(FROM WS3)	(FROM WS4)	(FROM WS5)	(FROM WS6)	(FROM WS1)	(FROM WS2)	(FROM WS3)	(FROM WS4)	(FROM WS5)	SS
-	ARSENIC	0.0E+00	XX.	0.0E+00	0.0E+00	0.02+00	0.0E+00	0E+00	KN.	NA.	0E+00	ه	0E+00
2	BARIUM	6.0E-04	X.	0.02+00				9E-03	KN.	0E+00			
	BERYLLIUM	8.9E-06	X.	0.05+00				2E-03	NA.	KN			
•	CADMIUM (FOOD)	0.02+00	0.00+00	0.05+00				0E+00	0E+00	X.			
S	CADHIUM (WATER	0.0E+00	0.0E+00	0.05+00				0E+00	02+00	KN.			
•	CHRONIUM	1.6E-04	X.	0.05+00				3E-02	A.	0E+00			
7 -	MERCURY	0.0E+00	Y.N	0.05+00				0E+00	K N	02+00			
œ 	NICKEL	1.2E-04	X.	0.05+00				6E-03	X N	A.			
9	NITRATE	0.0E+00	XX.	0.0E+00				0E+00	K.	X.			
10 1	NITRITE	0.0E+00	NA.	0.02+00				0E+00	K N	K N			
11	SILVER	0.0E+00	. KN	0.02+00				0E+00	X.	ΑN			
12 :	MULTIVEL	0.0E+00	X.	0.02+00				0E+00	K	XX			
13	MUIDANAV	1.8E-04	NA.	0.02+00	•			3E-02	AN	AN			
14	ACETONE	6.9E-06	N.	5.9E-14	;			7E-05	AN.	K N			
15	Benzenb	6.9E-06	N.A.	4.1E-16				XN.	N.	KN.			
16	CARBON DISULFI	0.02+00	NA.	0.02+00				0E+00	XN.	00+30			
17	ethy lbenzenb	6.9E-06	KN	1.9E-17				72-05	X.	02+00			
18 -	HETHYLISOBUTYL	6.9E-06	X.	7.62-18				1E-04	X.	02+00			
19	TOLUENE	6.9E-06	¥.	7.6E-17				3E-05	. AN	00+30			
20	XYLENES, TOTAL	7.8E-06	KN.	2.7E-16				4E-06	. AN	. 02+00			
21	1,2-DIMETHYLBE	0.0E+00	KN	0.02+00				0E+00	X.	0E+00			
22	1,3-DIMETHYLBE	0.02+00	. AN	0.02+00				00+30	X.	00+30			
23	2,4-DIHETHYLPH	0.02+00	KN.	0.0E+00				00+30	K N	X.			
24	2-METHYLNAPHTH	0.02+00	K N	0.02+00				0E+00	AN	X.			
25	2-METRYLPHENOL	0.0E+00	٠ ٨٨	0.02+00				0E+00	N.A.	N.			
26	ACENAPHTHENE	0.0E+00	AN.	0.0E+00				0E+00	X.	NA.			
27	ANTERACENS	0.02+00	K.	0.02+00				00+30	X.	X.			
28	BENZO (a) ANTH	0.02+00	KN.	0.02+00		•		0E+00	. NA	X.			
29	BENZO [a] PYRE	0.02+00	KN KN	0.02+00				0E+00	NA.	X.			
30 -	BENZO [b] FLUO	0.02+00	KN.	0.05+00				0E+00	ΧN	KN			
31 -	BENZO [g,h,i]	0.0E+00	A.	0.02+00				0E+00	NA.	AN.			
32 -	BENZO [k] FLUO	0.0E+00	X.	0.02+00				0E+00	X.	X.			
	BIS (2-ETHYLHE	3.9E-06	K.	0.02+00				2E-04	XN.	NA.			
34 (CHRYSENS	0.0E+00	KN	0.02+00				0E+00	X.	AN.			
35	DIBENZ [a,h] A	0.0E+00	AN.	0.02+00				0E+00	. NA	K K			
36	PLUORANTHENE	0.0E+00	XN.	0.0E+00				0E+00	A.N.	KN			
37	FLUORENE	0.0E+00	KN	0.02+00				0E+00	AN	XN.			
	INDENO [1,2,3-	0.0E+00	AN.	0.02+00				0E+00	N.A.	XN.			
39	ENTLATERAL	0.0E+00	KN.	7.0E-19				0E+00	AN.	K.			
6	Phenanthrens	0.02+00	K.	0.0E+00				0E+00	X.	XX.			
=	PHENOL	0.02+00	Y.H	0.0E+00				0E+00	X.	AN			
2	PYRENE	0.02+00	N.A.	0.02+00)	0E+00	X.	YK			

SITE NAME: CAMERON STATION
OPERABLE UNIT: DISK 5
FILE NAME: POP5
LAST UPDATED: 06/05/92

		TRICHLOROFLUOR	2-(2,4,5-TRICH	2,4-DICHLOROPH	2,4,5-TRICHLOR	PCB 1260	METHOXYCHLOR	LINDANE / GAMA	HEPTACHLOR EPO	HEPTACHLOR	GAMMA-CHLORDAN	DIELDRIN	BETA-ENDOSULFA	BENZOIC ACID	BENZALDEHYDE	ALPHA CHLORDAN	ALDRIN	2,2-BIS (PARA-	2,2-BIS (PARA-	2,2-BIS (PARA-
		0.08+00	4.5E-08	1.8E-07	3.9E-08	4.2E-06	1.5E-06	0.0E+00	0.02+00	3.4E-06	2.1E-06 ·	3.4E-06	8.7E-07	0.0E+00	0.0E+00	2.7E-06	0.02+00	3.6E-06	3.5E-06	4.2E-06
		×	N.	KN.	KN	2.3E-06	N.	A.N	X.	A.	AN	A.	AN	N.	N.	N.	AN	A.A.	KN.	KN
		0.02+00	0.02+00	0.05+00	0.0E+00	0.02+00	0.02+00	0.0E+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.0E+00	0.0E+00	0.02+00	0.02+00	0.0E+00	0.0E+00	0.05+00
POPULATION TOTAL	PATHWAY SUM (HI)																		-	
3E-01	JE-01	06+00	6E-06	2E-05	4E-06	NA.	3E-04	0E+00	0E+00	7E-03	4E-02	7E-02	2E-02	0E+00	0E+00	5E-02	0E+00	NA	AN	8E-03
	00+30	Z,	N.	NA.	ĸ	A.	X.	K N	KN	K N	X.	N.	A.	NA.	N.	NA .	AN	XX	NA NA	۸N
	02+00	02+00	N.	X.	X	X.	KN	X.	KN	KN	N.	AN	NA.	XX	×	X.	A.A.	A.N	N.	A N
	02+00																			
	0E+00																			

0E+00

• .

 $\lim_{k \to \infty} \frac{1}{k^2} \frac{d^2 p_{ijk}}{dp_{ijk}} = \frac{d^2 p_{ijk}}{dp_{ijk}}$

3 2,2-BIS (PARA-14 2,2-BIS (PARA-15 2,2-BIS (PARA-16 ALDRIN 17 ALPHA CHLORDAN 18 BENZALDEHYDE 19 BENZOLC ACID 19 BENZOLC ACID

LIFETIME RISK SUMMARY

FUTURE RES-CHILD (RES)

SITE NAME: CAMERON STATION
OPERABLE UNIT: DISK 5
FILE NAME: POP5
LAST UPDATED: 06/05/92

LIFETIME EXPOSURE SUMMARY

FUTURE RES-CHILD (RES)

CEMBRIDE SEPREMO SEPREMO SERBATO SER						25						0.00.00	AL FINENC
CEMANO SCRIMANO)			= 3	2 2	¥ 3)			0.02.00	Z ;	00+40	12 Branch
CERNATION CERN				¥ ;	E .					0.0440.0	ו א א	00140	
CEMBRIO CEMB				*	K M	K.A.	•			0.02+00	KN KN	0.02+00	
CERTIANIE CERT				¥	A.N.	XX.				6.2E-20	YN.	0.02+00	
Centrol Cent				XX.	XX.	0E+00				0.02+00	AN.	0.0E+00	38 INDENO [1,2,3-
California Cal				AN	A.N	X N				0.02+00	AN.	0.0E+00	37 FLUORENE
				KK.	. AX	AN.				0.0E+00	Y.	0.02+00	36 FLUORANTHENE
California Cal				V K	NA.	0E+00				0.02+00	K K	0.0E+00	35 DIBENZ (a,h) A
SCENARIO				X.	XN.	0E+00			•	0.02+00	K N	0.02+00	34 CHRYSENE
				AN.	AN.	5E-09				0.0E+00	V N	3.3E-07	33 BIS (2-ETHYLHE
SEZEMATIO SEZMATO SE				YK	XN.	0E+00				0.02+00	X.	0.02+00	32 BENZO [k] FLUO
SCENMATO				YX	XN.	X N				0.02+00	X N	0.02+00	
SCIENNATO SCIE				VN	X.	02+00				0.02+00	AN	0.0E+00	
SCIENNICIO SCI				AN	AN	00+30				0.02+00	XN.	0.02+00	Ξ
Secondario Sec				AX	NA.	0E+00		•		0.02+00	K N	0.0E+00	28 BENZO (a) ANTH
Secondario Sec				AN	AN	AN				0.02+00	K N	0.02+00	27 ANTERACENE
Secondario Sec				X.	AN	AN				0.05+00	N.	0.0E+00	26 ACENAPHTHENE
RESIDENCE RESI				XN.	KN	NA.				0.02+00	X N	0.0E+00	
Residence Resi				A.N.	AN.	NA.				0.02+00	X.	0.0E+00	24 2-METHYLNAPHTH
RESIDENCE RESI				AN	AN	AN				0.02+00	XN.	0.02+00	23 2,4-DIMETHYLPH
RESIDENCE RESI				YN	YN.	A.N				0.02+00	NN.	0.02+00	22 1,3-DIMETHYLBE
Scemario				XX.	X.	AN NA				0.02+00	K N	0.0E+00	21 1,2-DIMETHYLBE
Scemario				NA.	AN.	NA.				2.4E-17	AN	6.6E-07	XYLENES,
SCENNATO SCENO SCENNATO SCENO SCENNATO SCENO SCENATO SCENNATO SCENO SCENATO SCENO SCENATO SCENO SCENATO				VN	. AN	NA.				6.7E-18	X.	5.9E-07	
SCENNAIO SCENOIO				YN.	X.	VN				6.7E-19	AN	5.9E-07	18 METHYLISOBUTYL
SCENARIO				A.A.	AN	A N				1.7E-18	A.N.	5.9E-07	17 ETHYLBENZENE
SCENARIO				X.	N.	X.				0.02+00	K N	0.02+00	16 CARBON DISULFI
SCENNARIO SCEN				00+30	N.	2E-08				3.62-17	. NA	5.9E-07	15 BENZENE
SCENNARIO SCENDARIO SCEN				AN.	AN.	N.				5.22-15	KN KN	5.9E-07	14 ACETONE
SCENARIO				A.N	AN	AN.					X.	1.5E-05	13 VANADIUM
SCEMARIO				KN.	AN.	NA.					AN	0.0E+00	12 THALLIUM
SCENARIO I SCENARIO 2 SCENARIO 3 SCENARIO 4 SCENARIO 5 SCENARIO 6 SCENARIO 2 SCENARIO 3 SCENARIO 6 RESIDENCE RESIDEN				Y.	X N	K N				•	NA.	0.0E+00	11 SILVER
SCENARIO 1 SCENARIO 2 SCENARIO 3 SCENARIO 4 SCENARIO 5 SCENARIO 6 SCENARIO 1 SCENARIO 3 SCENARIO 5 SCENARIO 6 RESIDENCE RESIDENCE RESIDENCE O O O SOIL SIL AIR-VOC O O SOIL SOIL AIR-VOC O O SOIL SOIL AIR-VOC O O O SOIL SOIL AIR-VOC O O O O O O O O O O O O O O O O O O				KN.	AN.	X.					YN	0.0E+00	10 NITRITE
SCENARIO 1 SCENARIO 2 SCENARIO 3 SCENARIO 4 SCENARIO 5 SCENARIO 1 SCENARIO 2 SCENARIO 3 SCENARIO 5 SCENARIO 5 SCENARIO 5 SCENARIO 1 SCENARIO 2 SCENARIO 3 SCENARIO 5 SCENARIO 5 SCENARIO 7 SCENARIO 8 SCENARIO 8 SCENARIO 8 SCENARIO 8 SCENARIO 9 O O SCIL SOIL AIR-VOC 0 0 0 SCIL SOIL AIR-VOC 0 0 0 CRAL DERMAL INBALATION 0 0 0 0 CRAL DERMAL INBALATION 0 0 0 0 CRAL DERMAL SOIL AIR-VOC 0 0 0 CRAL DERMAL SOIL AIR-VOC 0 0 0 0 CRAL DERMAL SOIL AIR-VOC 0 0 0 0 CRAL DERMAL SOIL SOIL AIR-VOC 0 0 0 0 0 CRAL DERMAL SOIL AIR-VOC 0 0 0 0 CRAL DERMAL SOIL SOIL AIR-VOC 0 0 0 0 CRAL DERMAL SOIL SOIL AIR-VOC 0 0 0 CRAL DERMAL SOIL SOIL AIR-VOC 0 0 0 CRAL DERMAL SOIL SOIL AIR-VOC 0 CRAO 0 CRAO 0 CRAO SOIL SOIL SOIL AIR-VOC 0 CRAO 0				KN.	AN.	NA.					K N	0.0E+00	9 NITRATE
SCENARIO 1 SCENARIO 2 SCENARIO 3 SCENARIO 4 SCENARIO 5 SCENARIO 1 SCENARIO 2 SCENARIO 3 SCENARIO 5 SCENARIO 5 SCENARIO 7 SCENARIO 8 SCENARIO 8 SCENARIO 8 SCENARIO 8 SCENARIO 8 SCENARIO 9 CONTINUENTE RESIDENCE RESIDENC				Y.	X N	N.				0.02+00	K N	1.0E-05	8 NICKEL
SCENARIO 1 SCENARIO 2 SCENARIO 3 SCENARIO 4 SCENARIO 5 SCENARIO 1 SCENARIO 3 SCENARIO 3 SCENARIO 5 SCENARIO 5 SCENARIO 7 SCENARIO 3 SCENARIO 5 SCENARIO 5 SCENARIO 7 SCENARIO 8 SCENARIO 9 CENARIO 8 SCENARIO 9 CENARIO 9 CENARI				KN	, AN	A.W			•	0.02+00	AN	0.0E+00	7 MERCURY
SCENARIO 1 SCENARIO 2 SCENARIO 3 SCENARIO 4 SCENARIO 5 SCENARIO 1 SCENARIO 2 SCENARIO 3 SCENARIO 5 SCENARIO 5 SCENARIO 5 SCENARIO 1 SCENARIO 3 SCENARIO 5 SCENARIO 5 SCENARIO 5 SCENARIO 6 SCENARIO 7 SCENARIO 8				00+30	X.	X.				-	· KN	1.4E-05	6 CHROMIUM
SCENARIO 1 SCENARIO 2 SCENARIO 3 SCENARIO 3 SCENARIO 5 SCENARIO 6 SCENARIO 1 SCENARIO 2 SCENARIO 3 SCENARIO 5 SCENARIO 5 SCENARIO 1 SCENARIO 2 SCENARIO 3 SCENARIO 5 SCENARIO 5 SCENARIO 5 SCENARIO 1 SCENARIO 2 SCENARIO 3 SCENARIO 5 SCENARIO 5 SCENARIO 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				02+00	N.	A.N				0.02+00	0.0E+00	0.0E+00	5 CADMIUM (WATER
SCENARIO 1 SCENARIO 2 SCENARIO 3 SCENARIO 4 SCENARIO 5 SCENARIO 6 SCENARIO 1 SCENARIO 3 SCENARIO 5 SCENARIO 5 SCENARIO 1 SCENARIO 2 SCENARIO 3 SCENARIO 5 SCENARIO 5 SCENARIO 5 SCENARIO 6 SCENARIO 1 SCENARIO 3 SCENARIO 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				0E+00	N.	N.				0.02+00	0.0E+00	0.0E+00	(CADMIUM (FOOD)
SCENARIO 1 SCENARIO 2 SCENARIO 3 SCENARIO 3 SCENARIO 5 SCENARIO 6 SCENARIO 1 SCENARIO 3 SCENARIO 3 SCENARIO 5 SCENARIO 5 SCENARIO 1 SCENARIO 2 SCENARIO 3 SCENARIO 5 SCENARIO 5 SCENARIO 5 SCENARIO 6 SCENARIO 7 SCENARIO 7 SCENARIO 7 SCENARIO 8				02+00	X.	3E-06				0.02+00	KN.	7.6E-07	3 BERYLLIUM
SCENARIO 1 SCENARIO 2 SCENARIO 3 SCENARIO 4 SCENARIO 5 SCENARIO 6 SCENARIO 1 SCENARIO 3 SCENARIO 4 SCENARIO 5 SCENA RESIDENCE RESIDENCE RESIDENCE 0 0 0 RESIDENCE RESIDENCE RESIDENCE O 0 SOIL SOIL AIR-VOC 0 0 ORAL DERMAL INMALATION 0 0 0 ORAL DERMAL INMALATION 0 0 0 ORAL DERMAL INMALATION 0 0 0 ORAL DERMAL SOIL SOIL AIR-VOC 0 0 ORAL DERMAL INMALATION 0 0 0 ORAL DERMAL SOIL SOIL SOIL SOIL AIR-VOC 0 0 ORAL DERMAL SOIL SOIL SOIL SOIL SOIL SOIL SOIL SOI				K.	AN.	A N				0.02+00	KN.	5.1E-05	2 BARIUM
SCENARIO 1 SCENARIO 3 SCENARIO 4 SCENARIO 5 SCENARIO 6 SCENARIO 1 SCENARIO 3 SCENARIO 4 SCENARIO 5 SCENARIO 6 SCENARIO 1 SCENARIO 3 SCENARIO 5 SCENARIO 6 SCENARIO 7 SCENARIO 8		02+00	0E+00	00+30	KN.	0E+00	0.0E+00	0.0E+00	0.0E+00	0.02+00	KN	0.0E+00	1 ARSENIC
SCENARIO 1 SCENARIO 3 SCENARIO 4 SCENARIO 5 SCENARIO 6 SCENARIO 1 SCENARIO 3 SCENARIO 3 SCENARIO 5 SCENARIO 6 SCENARIO 1 SCENARIO 3 SCENARIO 5 SCENARIO 5 SCENARIO 6 SCENARIO 1 SCENARIO 2 SCENARIO 3 SCENARIO 5 SCENARIO 5 SCENARIO 6 SCENARIO 1 SCENARIO 1 SCENARIO 3 SCENARIO 5 SCENARIO 5 SCENARIO 1 SCENARIO 1 SCENARIO 2 SCENARIO 3 SCENARIO 5 SCENARIO 6 O RESIDENCE O O O O O O O O O O O O O O O O O O O	(FROM WS6	(FROM WS5)	(FROM WS4)	(FROM WS3)	(FROM WS2)	(FROM WS1)	(FROM WS6)	(FROM WS5)	(FROM WS4)	(FROM WS3)	(FROM WS2)	(FROM WS1)	
NATO 1 SCENARIO 3 SCENARIO 4 SCENARIO 5 SCENARIO 6 SCENARIO 1 SCENARIO 2 SCENARIO 3 SCENARIO 5 SCENARIO 5 SCENARIO 5 SCENARIO 1 DENCE RESIDENCE RESIDENCE RESIDENCE 0 0 0 SOIL AIR-VOC 0 0 0 SOIL AIR-VOC 0 0 0 0 0 SOIL AIR-VOC 0 0 0 0 SOIL AIR-VOC 0 0 0 0 0 0 SOIL AIR-VOC 0 0 0 0 0 0 SOIL AIR-VOC 0 0 0 0 0 SOIL AIR-VOC 0 0 0 0 0 0 0 SOIL SOIL AIR-VOC 0 0 0 0 0 0 0 SOIL SOIL AIR-VOC 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	_	_	0	INEALATION	DERMAL	ORAL	0	<u>}</u>	0	INHALATION	DERMAL	ORAL	
SCENARIO 2 SCENARIO 3 SCENARIO 4 SCENARIO 5 SCENARIO 6 SCENARIO 1 SCENARIO 2 SCENARIO 3 SCENARIO 5 SCENARIO 5 SCENARIO 6 SCENARIO 1 SCENARIO 2 SCENARIO 3 SCENARIO 5 SCENARIO 6 SCENARIO 1 SCENARIO 1 SCENARIO 1 SCENARIO 3 SCENARIO 3 SCENARIO 5 SCENARIO 6 SCENARIO 1 SCENARIO 1 SCENARIO 3 SCENARIO 3 SCENARIO 5 SCENARIO 5 SCENARIO 6 SCENARIO 1 SCENARIO 1 SCENARIO 3 SCENARIO 3 SCENARIO 5 SCENARIO 5 SCENARIO 6 SCENARIO 1 SCENARIO 1 SCENARIO 6 SCENARIO 1 SCENARIO 1 SCENARIO 1 SCENARIO 1 SCENARIO 6 SCENARIO 1	_	_	0	AIR-VOC	TIOS	TIOS	o		0	AIR-VOC	TIOS	TIOS	
SCENARIO 2 SCENARIO 3 SCENARIO 4 SCENARIO 5 SCENARIO 6 SCENARIO 1 SCENARIO 2 SCENARIO 3 SCENARIO 4 SCENARIO 5 SCENARIO				RESIDENCE	RESIDENCE	RESIDENCE	0		0	RESIDENCE	RESIDENCE	RESIDENCE	
	SCENARIO		SCENARIO 4	SCENARIO 3	SCENARIO 2	SCENARIO 1		RIO	SCENARIO 4	SCENARIO 3	SCENARIO 2	SCENARIO 1	

					NA 0.0E+00			NA 0.0E+00		NA 0.0E+00		NA 0.0E+00	NA 0.02+00	NA 0.0E+00					NA 0.0E+00	
POPULATION TOTAL EXCESS RISK	TOTAL PATHWAY CANCER RISK													,						
1E-05	1E-05	N.	N.	KN.	N.	3E-06	NA.	0E+00	0E+00	1E-06	2E-07	5E-06	N.	AN	AN	3E-07	0E+00	7E-08	1E-07	
	1E-06	Z,	X.	K N	· NA	1E-06	AN	K N	N.A	X.	NA.	AN.	ΑN	KK	KN	NA.	N.	N.	N.	
	0E+00	X	NA.	X.	KN	A.	X.	NA.	00+30	0E+00	0E+00	0E+00	NA.	N.A.	XN	02+00	0E+00	X	X.	
	02+00								•											
	0E+00																			

0E+00

 $\sum_{k \in \mathcal{L}_{k}} |\partial_{k} f_{k}^{k}(k)| \leq \frac{2 \mathcal{R}_{k}(k)}{k}$

3.6E-07 3.1E-07 0.0E+00 0.0E+00 0.0E+00 0.0E+00 7.3E-08 2.9E-07 1.8E-07 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0.0E-07 1.5E-08 0.0E+00

:

43 2,2-BIS (PARA44 2,2-BIS (PARA45 2,2-BIS (PARA46 ALDRIN
47 ALPHA CHLORDAN
48 BENZALDEHYDE
49 BENZOL ACID
50 BETA-ENDOSULFA
51 DIELDRIN
52 GAMMA-CHLORDAN
53 HEPTACHLOR
54 HEPTACHLOR EPO
55 LINDANE / GAMA
56 METHOXYCHLOR
57 PCB 1260
58 2,4,5-TRICHLOROPH
60 2-(2,4,5-TRICH
61 TRICHLOROFLUOR

1E-07

SUBCHRONIC EXPOSURE SUMMARY

FUTURE RES-CHILD (LF)

42 PYREN	41 PHENOL	40 PHENANTHRENE	39 KAPHTHALENB	38 INDENO [1,2,3-	37 FLUORENE	36 FLUORANTHENE	35 DIBENZ (a,h) A	34 CERYSENE	33 BIS (2-ETHYLHE	32 BENZO [k] FLUO	31 BENZO [g,h,i]	30 BENZO [b] FLUO	29 BENZO [a] PYRE	28 BENZO [a] ANTH	27 ANTERACENE	26 ACENAPHTHENE	25 2-METHYLPHENOL	24 2-METHYLNAPHTH	23 2,4-DIMETHYLPH	22 1,3-DIMETRYLBE	21 1,2-DIHETHYLBE	20 XYLENES, TOTAL	19 TOLUENE	18 HETHYLISOBUTYL	17 STHYLBENZENE	16 CARBON DISULFI	15 BENZENE	14 ACETONE	HUIDANAV ET	12 TEALLIUM	11 SILVER	10 NITRITE	9 NITRATE	8 NICKEL	7 MERCURY	6 CHRONIUM	5 CADMIUM (WATER	A CADMIUM (FOOD)	3 BERYLLIUM	2 BARIUM	1 ARSENIC	CHEMICAL NAME					
2.88-06	0.02+00	2.5E-06	4.3E-07		4.38-07	2.5E-06	0.0E+00	1.4E-06	4.3E-07	_	5.3E-07		1.1E-06	2.88-06	4.3E-07	4.32-07	. 0.0E+00	4.38-07	0.05+00			٠.	_	_			7.8E-07	7.8E-07	1.92-05	0.02+00	0.02+00	0.02+00	0.0E+00	4.9E-06	0.02+00			0.02+00	1.7E-06	1.1E-04	0.02+00	(FROM WS1)	ORAL	TIOS	LANDFILL	SCENARIO 1	
2	*	XX.	A.	KN	AN	KN	A.N.	XX	KN	K.	K.	KN.	K N	KN	NA.	XX.	KN	K.	XN.	KK	K.	KN	KN.	K.	X.	N.	K	N.	¥	XX.	NA.	K.	KN	XN.	KK	¥	0.05+00	0.0E+00	¥	¥	¥	(FROM WS2)	DERHAL	TIOS		SCENARIO 2	SUBCHRONIC D
																									•		. •														_	(FROM WS3)	0	0		SCENARIO 3	SUBCHRONIC DAILY INTAKE (mg/kg/day)
																																									_	(FROM WS4)	•	0	_	г	(ma/ka/day)
																																									_	(FROM WS5)	0	0		SCENARIO 5	
)												•																													0.02+00	(FROM WS6)	0	0		SCENARIO 6	
92-06	02+00	82-06	12-05	2E-06	1E-06	6E-06	0E+00	5E-06	2E-05	4E-06	2E-06	€E-06	4E-06	98-06	1E-07	7E-07	KN.	1E-06	0E+00	0E+00	02+00	2E-07	4E-07	2E-06	8E-07	0E+00	ĸĸ	8E-07	3E-03	00+00	0E+00	A.N.	X.	2E-04	02+00	1E-03	K.	K.	* 3E-04	2E-03	00+00	(FRON WS1)	ORAL	SOIL		SCENARIO 1	
×	2	KN	K.	A.N	AN.	AN.	XN.	AN.	AN	AN.	AN.	XX.	XN.	VN	AN	KN.	AN	KN.	KN.	AN.	XN.	NA.	NA.	XX	AN.	K N	XX.	AN.	NA.	K N	AN.	XX	AN	N.	N.	K N	N	AN.	X.	N	N.	(FROM WS2)	DERMAL	TIOS		SCENARIO 2	SIIBCHBON1
																																									02+00	(FROM WS3)	0	0	0	SCENARIO 3	SUBCHBONIC BAZARD ODOTTENT
																																									02+00	(FROM WS4)	0	0		SCENARIO 4	\- - - - - - - - - - - - - - - - - - -
																•																									02+00	(FROM WS5)	0	0		SCENARIO 5	
)																																									00+30	(FRON WS6)	0	0		SCENARIO 6	

SUBCHRONIC RISK SUMMARY

FUTURE RES-CHILD (LF)

SITE NAME: CAMERON STATION
OPERABLE UNIT: DISK 5
FILE NAME: POP6
LAST UPDATED: 06/05/92

. •	61 TRICHLOROFLUOR	60 2-(2,4,5-TRICH	59 2,4-DICHLOROPH	58 2,4,5-TRICHLOR	57 PCB 1260	56 METHOXYCHLOR	55 LINDANE / GAMA	54 HEPTACHLOR EPO	53 HEPTACHLOR	52 GAMMA-CHLORDAN	51 DIELDRIN	50 BETA-ENDOSULFA	49 BENZOIC ACID ,	48 BENZALDEHYDE	47 ALPHA CHLORDAN	46 ALDRIN	45 2,2-BIS (PARA-	44 2,2-BIS (PARA-	43 2,2-BIS (PARA-
	0.02+00	0.0E+00	0.02+00	0.0E+00	0.0E+00	0.02+00	0.0E+00	0.02+00	0.02+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.02+00	0.02+00	0.02+00	0.05+00	0.05+00	0.0E+00
	V N	AN AN	K N	NA	0.0E+00	AN	AN	AN	NA.	AN	AN	K N	AN	AN	AN.	K N	A.	Y.N	NA
PATHWAY SUM (HI)																			
* 7E-03	0E+00	0E+00	02+00	0E+00	X.	02+00	0E+00	XN	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	0E+00	KN.	X.	0E+00
06+00	N.	AN.	K N	KN	××	X.	K N	K.	KN.	N.	X.	ĸ	ĸ	N.	KN	ĸ.	KN.	K N	ĸ.
0E+00																			

POPULATION TOTAL 7E-03

08+00

00+30

0E+00

CHRONIC EXPOSURE SUMMARY

RES-CHILD (LF)

ω κ	, <u>-</u>						
Z	ARSENIC	NAME					
1.7E-06	0.02+00	(FROM WS1)	ORAL	TIOS	LANDFILL	SCENARIO 1]
X X	XX.	(FROM WS2)		TIOS	LANDFILL	SCENARIO 2	CHRONIC DAILY INTAKE
	0.05+00	(FROM WS3)	0		0	SCENARIO 3	-
	0.02+00	(FROM WS4)	0	0	0	SCENARIO 4	19/kg/day)
	0.05+00	(FROM WS5)	0	0	0	SCENARIO 4 SCENARIO 5 SCENARIO	
	0.05+00	(FROM WS6)	0	0	0	SCENARIO 6	
36-04	00+30	(FROM WS1)	ORAL	TIOS	LANDFILL	SCENARIO 1	
NA NA	YN.	(FROM WS2)	DERHAL	TIOS	LANDFILL	SCENARIO 2	CHRONIC HAZARD
	00+30	(FROM WS3)	0		0	SCENARIO 3	HAZARD QUOTI
	02+00	(FROM WS4)	0	•	0	SCENARIO 4	ENT
	00+30	(FROM WS5)	0	0	0	SCENARIO 2 SCENARIO 3 SCENARIO 4 SCENARIO 5 SCENARIO 6	
	02+00	(FROM WS6)	0	0	0	SCENARIO 6	

2 = 5

NICKEL NITRATE NITRITE

4.9E-06 0.0E+00 0.0E+00

0E+00 0E+00 0E+00 0E+00

0E+00

0E+00 0E+00

3E-03

0.02+00 2.0E-05

0.02+00

1.92-05

CADMIUM (FOOD)
CADMIUM (WATER

0.0E+00 0.0E+00

CHRONIUM MERCURY

1 SILVER
2 THALLIUM
3 VANADIUM
4 ACETONE
5 BENZENE
6 CARBON DISULFI
7 ETHYLBENZENE
8 METHYLISOBUTYL

2 2 2

PYRENE PHENOL PHENANTHRENE

INDENO [1,2,3-NAPHTHALENE

2.5E-06 4.3E-07 6.7E-07 4.3E-07 2.5E-06 0.0E+00

FLUORANTHENE DIBENZ (a,h) A CHRYSENE

FLUORENE

1.1E-06 4.3E-07 1.4E-06

0.0E+00

8 BENZO [a] ANTH
9 BENZO [a] PYRE
0 BENZO [b] FLUO
1 BENZO [g,h,1]
2 BENZO [k] FLUO
3 BIS (2-ETHYLHE

2 1,3-DIMETHYLBE 3 2,4-DIMETHYLPH 4 2-METHYLNAPHTH 5 2-METHYLPHENOL

0.00+000 0.00+0000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+0000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+0000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+0000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+0000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+0000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+0000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+0000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+0000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+0000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+0000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+0000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+0000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+0000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+0000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+000 0.00+0

XYLENES, TOTAL 1,2-DIMETHYLBE TOLUENE

7.8E-07 7.8E-07 0.0E+00 7.8E-07 7.8E-07 7.8E-07 7.8E-07

ANTERACENB ACENAPHTHENE

0.0E+00 0.0E+00 0.0E+00 4.3E-07 0.0E+00 4.3E-07 4.3E-07 2.8E-06 1.1E-06 1.1E-06

8E-06
NA
0E+006
RE-06
RE-07
0E+006

CHRONIC RISK SUMMARY

RES-CHILD (LF)

FUTURE

SITE NAME: CAMERON STATION OPERABLE UNIT: DISK 5
FILE NAME: POP6
LAST UPDATED: 06/05/92

		61 TRICHLOROFLUOR	60 2-(2,4,5-TRICH	59 2,4-DICHLOROPH	58 2,4,5-TRICHLOR			55 LINDANE / GAMA	54 HEPTACHLOR EPO	53 HEPTACHLOR	52 GAMMA-CHLORDAN	51 DIELDRIN	50 BETA-ENDOSULFA	49 BENZOIC ACID	48 BENZALDERYDE	47 ALPHA CHLORDAN	46 ALDRIN	45 2,2-BIS (PARA-	44 2,2-BIS (PARA-	43 2,2-BIS (PARA-	
		0.02+00	0.0E+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.02+00	0.0E+00	0.02+00	0.0E+00	0.0E+00	0.0E+00	0.05+00	0.0E+00	0.0E+00	
		AN A	NA.	YN	A.N	0.0E+00	XX.	K.	X.	N.A.	KK	XX	NA.	AN	AN	NA.	NA	A.A.	NA.	NA AN	
POPULATION TOTAL	PATHWAY SUM (HI)						•														
15-02	1E-02	08+00	00+00	00+30	0E+00	. X	0E+00	0E+00	0E+00	0E+00	00+30	0E+00	0E+00	00+30	0E+00	0E+00	00+30	NA.	× ×	00+30	
	0E+00	2	. ×	NA	X.		¥	NA.	N.	3	X	2	X.	× ×	×	×	×	×	ž	. X	
	0E+00																				
	0E+00																				
	00+30		•	•																	
	00+00																				

San San San

LIFETIME EXPOSURE SUMMARY

FUTURE RES-CHILD (LF)

2 BARIUM 9.0E-06 NA NA NA SERVILIUM 1.5E-07 NA NA	NA 0.0E+00 0.0E+00 0.0E+00 0.0E+00 0E+00 NA	NAME (FROM WS1) (FROM WS2) (FROM WS3) (FROM WS4) (FROM WS5) (FROM WS1) (FROM WS1) (FROM WS2)	ORAL DERMAL 0 0 0 0 ORAL	SOIL SOIL 0 0 0 0 SOIL SOIL 0 0	III	-	LIFETHE AVERAGE DAILY INTAKE (mg/kg/day)	
AN AN	NA 0E+00 0E+00	WS2)	0 0	0	O OTIL	RIO 2 SCENARIO 3 SCENARIO 4	LIFETIME EXCESS CANCER RISK	•
	0E+00 0E+00 0E+00 0E+00	(FROM WS5) (FROM WS6)	0 0	0 0	0	SCENARIO 5 SCENARIO 6		

11 SILVER
12 THALLIUH
13 VANADIUH
14 ACETONE
15 BENZENE
16 CARBON DISULPI
17 ETHYLBENZENE
18 METHYLBOBUTYL

6.6E-08 6.6E-08 6.6E-08

CHROMIUM MERCURY NICKEL NITRATE NITRITE

1.7E-06 0.0E+00 4.1E-07 0.0E+00

0.0E+00

0.0E+00 0.0E+00

1.6E-06

2E-09

CADHIUM (FOOD) BERYLLIUM

(WATER

0.02+00

NA NA 0.02+00 0.02+00

8 BENZO (a) ANTH
9 BENZO (a) PYRE
0 BENZO (b) FLUO
1 BENZO (g,b,i)
2 BENZO (k) FLUO

9.4E-08

9.4E-08 2.3E-07

1E-07 5E-07 5E-08

5E-10 5E-08

7E-09

4.5E-08 9.4E-08 3.6E-08

Anthracene

3.6E-08 3.6E-08

ACENAPHTHENE

INDENO [1,2,3-NAPHTHALENE

PHENANTHRENE

2.1E-07 0.0E+00 2.3E-07

PYRENE

*Luoranthene DIBENZ (a,h) A

CHRYSENE BIS (2-ETHYLHE

1.28-07

FLUORENB

3.6E-08 5.7E-08 0.0E+00 2.1E-07

3.6E-08

2 1,3-DIMETHYLBE
3 2,4-DIMETHYLPH
4 2-METHYLNAPHTH
5 2-METHYLPHENOL

0.0E+00 0.0E+00 3.6E-08 0.0E+00

XYLENES, TOTAL 1,2-DIMETHYLBE TOLUENE

0.0E+00 6.6E-08 6.6E-08 6.62-08

DEST. D. T.	FUTURE	
17.51		

IFETIME
RISK
SUMMARY

FILE	OPERABLE	
NAME:	UNIT:	
POP6	DISK 5	
	WABLE UNIT: DISK 5	0101101

LAST UPDATED: 06/05/92 SITE NAME: CAMERON STATION

NA N	1
	0E+00 NA NA NA

POPULATION TOTAL EXCESS RISK TOTAL PATHWAY CANCER RISK 1E-06 1E-06 0E+00

> 02+00 0E+00

02+00

0E+00

Estimated Cancer Risk from Exposure to Chlorinated Dibenzodioxins and Dibenzofurans

continued-										
2E-06	NA	1.6E-06	2.1E-07	NA	4.3E-12	1.4E-12	1.3E-04	Fenceline	Maintenance Worker	Current
2E-09	NA	1.9E-09	1.1E-10	NA	5.2E-15	7.0E-16	6.4E-07	Holmes Run	Wader 🗽	Current
4E-09	NA	3.9E-09	2.1E-10	NA	1.1E-14	1.4E-15	1.3E-06	Backlick Run	Wader 2	Current
1E-05	Subtotal									
1E-05	NA	NA	1.1E-05	NA	NA	7.5E-11	3.0E-06	Cameron Lake Fish		
3E-09	NA	2.7E-09	7.9E-10	NA ⁽⁶⁾	7.1E-15	5.3E-15	1.7E-06	Cameron Lake Sediment	Child Visitor	Current
Total	Inhalation	Dermal	Oral	Intake, me/ke-day	Intake, me/ke-day	Intake,(e) mg/kg-day	Equiv. ^(b) Conc mg/kg	Exposure Point	Exposed Population	Scenario
	Risk ^(a)	Route-Specific Cancer Risk ^w	Route-	Inhalation	Dermal	Oral	Dioxin			

⁽a) Oral slope factor, 150,000 (based on administered dose). Dermal slope factor, 375,000 (oral slope factor + 0.4 to convert to absorbed dose (USEPA 1991a). Inhalation slope factor, 150,000.

⁽b) See text for explanation.

⁽c) Intake = Concentration * Human Intake Factor (* ABS 0.03, (USEPA 1992b) for dermal only).

⁽d) Not applicable.

	12 mg/m²) is product of	l.3E-12 mg/m²)	concentration (1	ruction site air	s only. Const	by rail line soil	(a) Future yard and construction work area soil are represented by rail line soils only. Construction site air concentration (1.3E-1 PM10 air concentration and dioxin equivalent soil concentration.	on work area so d dioxin equiva	ard and constructi	(a) Future y PM10 ai
8E-07	8.7E-10	3.7E-07	4.7E-07	5.8E-15	9.9E-13	3.1E-12	4.7E-05	Work Area ^(w)	Construction Worker	Future
2E-05	NA	1.5E-05	4.9E-06	NA	4.1E-11	3.3E-11	4.7E-05	Yard	Adult Resident	Future
2E-05	Subtotal									
1E-05	NA	NA	1.1E-05	NA	NA	7.5E-11	3.0E-06	Cameron Lake Fish		
3E-09	NA NA	2.7E-09	7.9E-10	NA	7.1E-15	5.3E-15	1.7E-06	Cameron Lake Sediment		·
1E-05	AN	5.2E-06	7.8E-06	NA	1.4E-11	5.2E-11	4.7E-05	Yard	Child Resident	Future
Total	Inhalation	Dermal	Oral	Intake, me/ke-dav	Intake, me/ke-day	Intake, mg/kg-day	Equiv. Conc mg/kg	Exposure Point	Exposed Population	Scenario
	r Risk	-Specific Cancer Risk	Route-Speci	Inhalation	Dermal	Oral	Dioxin			

Risk Calculation for Benzene and Trichloroethylene (TCE) in Air at Future Yards

Parameter	Units	South Plume Benzene	North Plume TCE
Predicted Air Concentration	mg/m ³	1.2E-10	1.3E-10
Human Intake Factors for Inhalation Route:			
Residential Adult Lifetime	m ³ /kg-day	9.4E-02	9.4E-02
Residential Child Lifetime	m ³ /kg-day	8.8E-02	8.8E-02
Inhalation Dose:			
Residential Adult Lifetime	mg/kg-day	1.2E-11	1.2E-11
Residential Child Lifetime	mg/kg-day	1.2E-11	1.2E-11
Inhalation Slope Factor	(mg/kg-day) ⁻¹	2.9E-02 ^(a)	6.0E-03
Cancer Risk Estimates: .			
Residential Adult Lifetime	Unitless	3.4E-13	7.4E-14
Residential Child Lifetime	Unitless	3.2E-13	6.9E-14
(a) January 22, 1992 IRIS retrieva	al.		

APPENDIX D . GLOSSARY OF EVALUATION CRITERIA

- Overall protection of human health and environment addresses whether or not a remedy provides adequate protection and describes how risks posed through each pathway are eliminated, reduced, or controlled through treatment, engineering controls, or institutional controls.
- Compliance with ARARs addresses whether or not a remedy will meet all of the applicable or relevant and appropriate requirements of federal and state environmental statues and/or provide grounds for invoking a waiver.
- Long-term effectiveness and permanence refers to the magnitude of residual risk and the ability of a remedy to maintain reliable protection of human health and the environment over time once cleanup goals have been met.
- Reduction of toxicity, mobility, or volume through treatment is the anticipated performance of the treatment technologies that may be employed in a remedy.
- Short-term effectiveness refers to the period of time with which the remedy achieves protection, as well as the remedy's potential to create adverse impacts on human health and the environment during the construction and implementation period.
- Implementability is the technical and administrative feasibility of a remedy, including the availability of materials and services needed to implement the chosen solution.
- Cost includes capital, operation and maintenance, and present worth costs.
- State acceptance of the preferred alternative will be addressed in the Decision Document after the public comment period ends.
- Community acceptance will be addressed in the Decision Document following a review of the public comments received on the RI/FS report and the Proposed Plan.